Order No. MD0304130C2

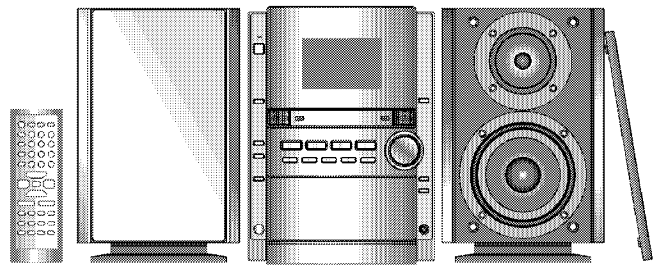
Service Manual

CD Stereo System

SA-PM28E
SA-PM28EB
SA-PM28EG

Color

(S) ... Silver Type



Remote Control Transmitter　SB-PM28　SA-PM28　SB-PM28

Specification

■ Amplifier Section

RMS Power output	
10% Total harmonic distortion	
1 kHz, both channels driven	35 W per channel (6 Ω)
(Low channel)	
8 kHz, both channels driven	35 W per channel (6 Ω)
(High channel)	
Total Bi-Amp power	70 W per channel
Input sensitivity	
AUX	250 mV
Input impedance	
AUX	11.8 kΩ

■ FM Tuner Section

Frequency range	87.50 - 108.00 MHz (50 kHz steps)
Sensitivity	1.8 μV (IHF)
S/N 26 dB	1.5 μV
Antenna terminal(s)	75 Ω (unbalanced)

■ AM Tuner Section

Frequency range	522 - 1629 kHz (9 kHz steps)
	520 - 1630 kHz (10 kHz steps)
Sensitivity	
S/N 20 dB (at 999 kHz)	560 μV/m

■ Cassette Deck Section

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Overall frequency response (+3 to -6 dB at Deck Out)	
Normal (Type I)	35 Hz - 14 kHz
S/N	50 dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind times	Approx. 120 seconds with C-60 cassette tape

■ CD Section

Disc played	
CD/MP3/WMA	8cm/12cm, CD-R/RW
Sampling frequency	44.1 kHz
Decoding	16 bit linear
Pickup	
Beam source/ Wavelength	Semiconductor laser / 780 nm
Number of channels	Stereo
Frequency response	20 Hz - 20 kHz (+1, -2dB)
Wow and flutter	Below measurable limit

Panasonic

Digital filter	8 fs
D/A converter	MASH (1 bit DAC)
MP3	
Bit rate	32kbps - 320 kbps
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
WMA	
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz

■ **General**

Power supply	
For EB only	AC 230 - 240 V, 50 Hz
For E & EG only	AC 230 V, 50 Hz
Power consumption	130 W
Power consumption standby mode	Approx.0.6 W
Dimensions (W x H x D)	179 x 247 x 378 mm
Mass	5.4 kg

■ **System**

■ System: SC-PM28 (E)	Music Center: SA-PM28 (E)
	Speaker: SB-PM28 (P)
■ System: SC-PM28 (EB)	Music Center: SA-PM28 (EB)
	Speaker: SB-PM28 (P)
■ System: SC-PM28 (EG)	Music Center: SA-PM28 (EG)
	Speaker: SB-PM28 (EG)

Notes:

1. Specifications are subject to change without notice.
   Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C311, C313, C314, C506, C507, C508, C584, C587, C588 and C708 through a 10 Ω, 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid over current.

Current consumption at AC 230 V, 50 Hz in NO SIGNAL mode should be ~300 mA.

2 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

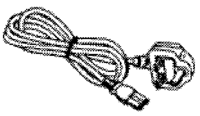
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

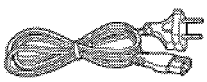
Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

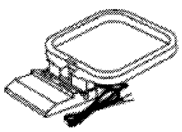
3 Accessories



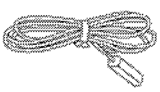
AC Main Lead .....(For EB only)



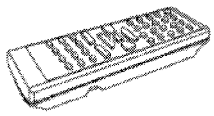
AC Main Lead .....(For E & EG only)



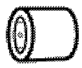
AM Loop Antenna.....1 pc



FM Indoor Antenna



Remote Control Transmitter.....1 pc



Antenna plug adaptor .....(For EB only)

4 Caution for AC Main Lead

(For "EB" area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

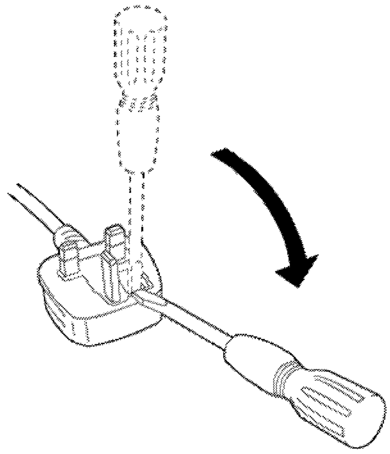
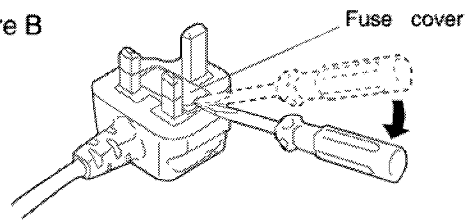


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

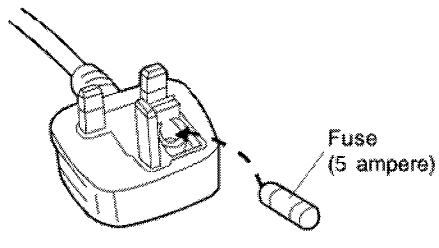
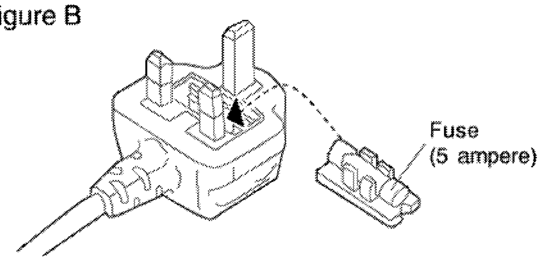
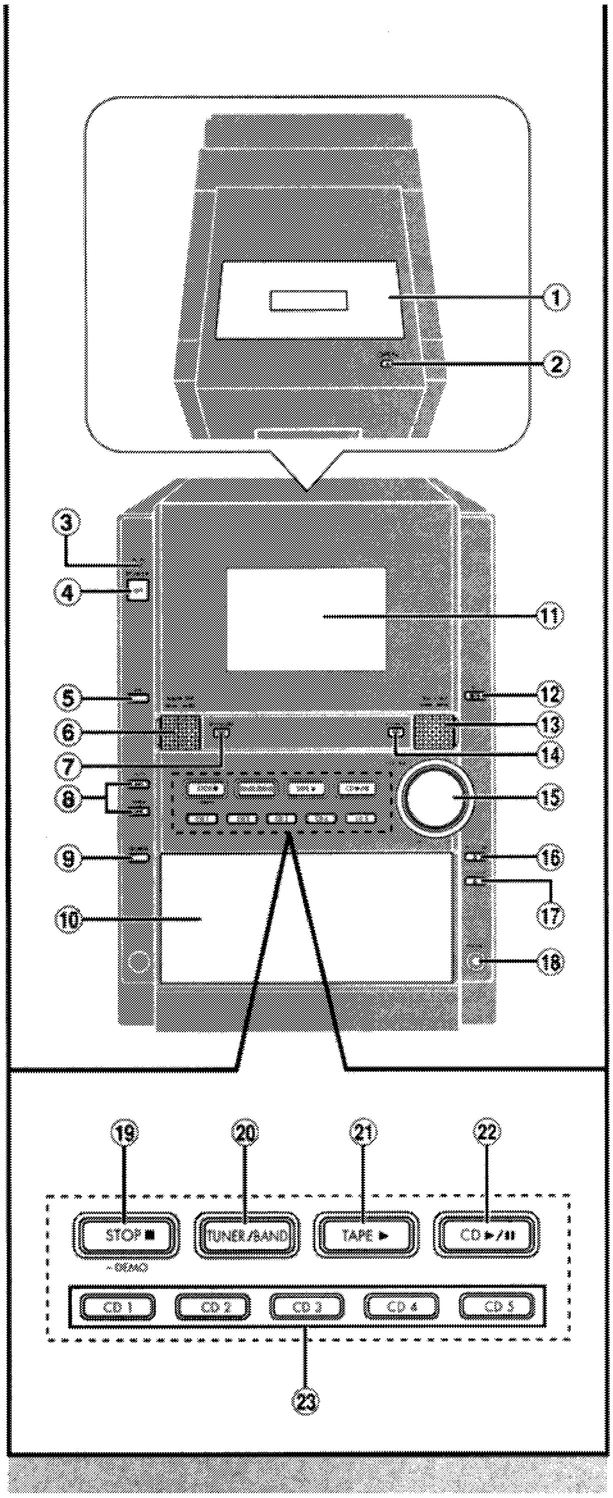


Figure B



5 Front Panel Controls



Front panel controls

Main unit

① **Cassette lid**

② **Cassette open button (≜ OPEN)**

③ **AC supply indicator (AC IN)**
This indicator lights when the unit is connected to the AC mains supply.

④ **Standby/on switch (⏻/I POWER)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

⑤ **Aux button (AUX)**.

⑥ **Album jog control (, , ALBUM SKIP)**

⑦ **Re-master button (RE-MASTER)**

⑧ **CD skip/search, tape fast-forward/rewind/TPS, tune/preset channel select, time adjust buttons (▶▶I ∧/FF, I◀◀ ∨/ REW)**

⑨ **CD check button (CD CHECK)**

⑩ **CD trays**

⑪ **Display**

⑫ **Recording start/pause button (●/II REC)**

⑬ **Track jog control (I◀◀, ▶▶I, TRACK SKIP)**

⑭ **Super sound EQ button (S.SOUND EQ)**

⑮ **Volume control (VOLUME DOWN, UP)**

⑯ **CD tray open/close button (≜ OPEN/CLOSE)**

⑰ **CD change button (≜ CD CHANGE)**

⑱ **Headphone jack (PHONES)**

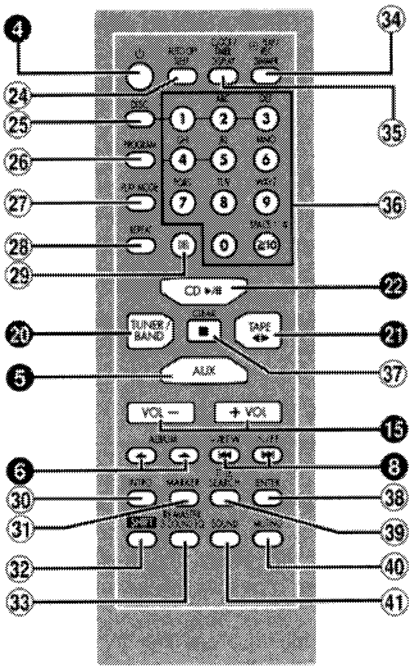
⑲ **Stop/program clear and demonstration button (STOP ■, –DEMO)**

⑳ **Tuner/band select button (TUNER/BAND)**

㉑ **Cassette play button (TAPE ▶)**

㉒ **CD play/pause button (CD ▶/II)**

㉓ **Disc direct play buttons (CD 1~CD 5)**



Front panel controls

Remote Control

Buttons such as ❹ function in exactly same way as the buttons on the main unit.

㉔ **Auto off + Sleep timer button (AUTO OFF, SLEEP)**

㉕ **Disc button (DISC)**

㉖ **CD Program, tuner preset button (PROGRAM)**

㉗ **Play mode select button (PLAY MODE)**
Use this for selecting CD play mode, tune mode, FM mode and AM beat proof function.

㉘ **Repeat button (REPEAT)**

㉙ **Delete button (DEL)**

㉚ **Intro button (INTRO)**

㉛ **Marker memory/recall button (MARKER)**

㉜ **Shift button (SHIFT)**
To use functions labelled in orange ✻ :
While pressing [SHIFT], press the corresponding button.
✻ For buttons [AUTO OFF], [CLOCK/TIMER], [⊙PLAY/REC] and [RE-MASTER].

㉝ **Re-master + Super sound EQ button (RE-MASTER, S.SOUND EQ)**

㉞ **Play timer/record timer + Dimmer button (⊙PLAY/REC, DIMMER)**

㉟ **Clock/timer + display button (CLOCK/TIMER, DISPLAY)**

㊱ **Numbered, character buttons (≧10, 1-9, 0, A-Z, SPACE!"#)**

㊲ **Stop/program clear button (■ CLEAR)**

㊳ **Enter button (ENTER)**

㊴ **Title search mode select button (TITLE SEARCH)**

㊵ **Muting button (MUTING)**

㊶ **Preset EQ + Manual EQ button (SOUND)**

6 Handling the Lead-free Solder

6.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

7 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

- **Handling of traverse deck (optical pickup)**
  1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
  2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
  3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
  4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

- **Grounding for electrostatic breakdown prevention**
  1. Human body grounding
     Use the anti-static wrist strap to discharge the static electricity from your body.
  2. Work table grounding.
     Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.

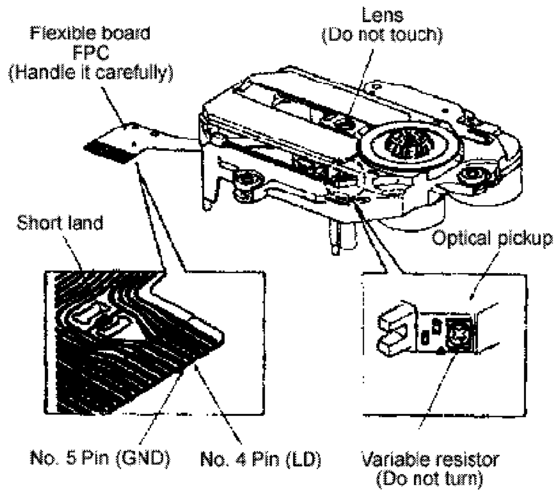


Figure No.7.1

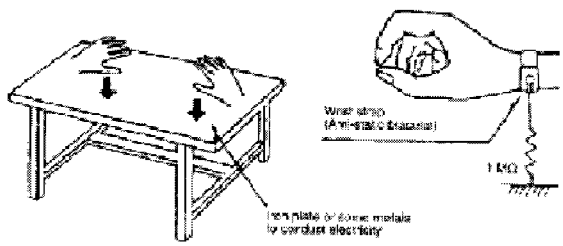


Figure No.7.2

8 Disassembly and Main Component Replacement Procedures.

“ATTENTION SERVICER”

Some chassis components maybe have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
   Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the Parts No. on the page of “Main component Replacement Procedures”, if necessary.

Contents

Warning:

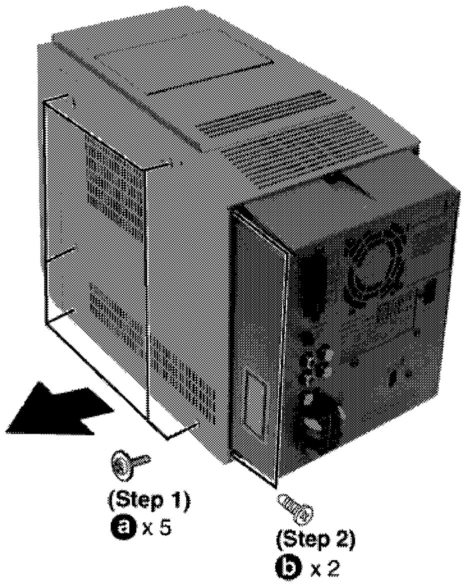
This product uses a laser diode. Refer to “Precaution of Laser Diode”.

ACHTUNG :-

- Die Lasereinheit nicht zerlegen.
- Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.

8.1. Checking Procedure for each major P.C.B

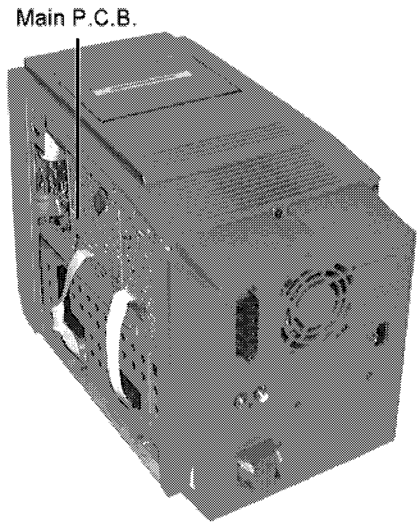
8.1.1. Checking for Main & Transformer P.C.B.

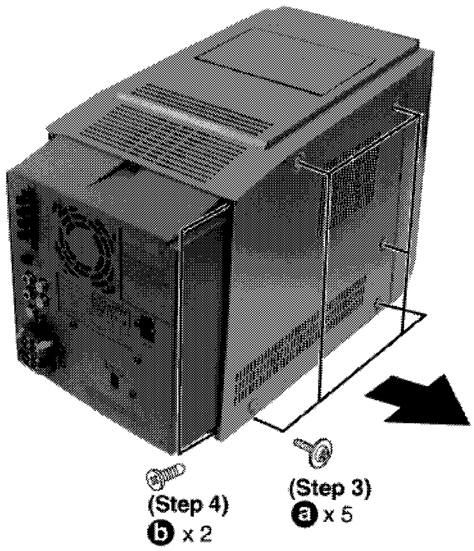


Step 1 Remove all the screws.

Step 2 Remove side panel.

- Checking for Main P.C.B.

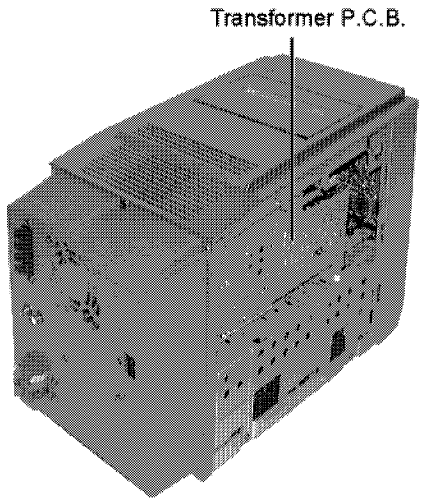




Step 3 Remove all the screws.

Step 4 Remove side panel.

- Checking for Transformer P.C.B.

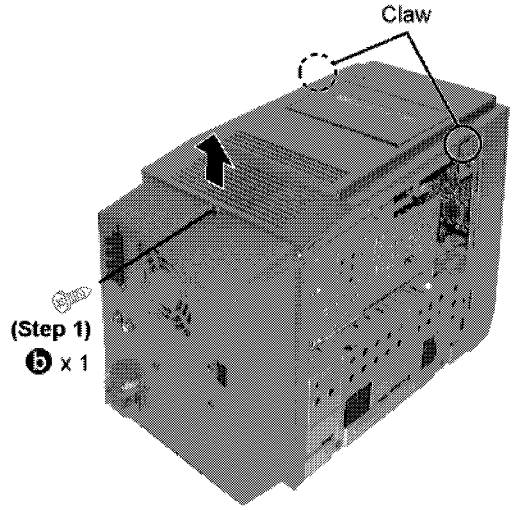


8.1.2. Checking for Deck P.C.B. and Deck Mechanism P.C.B.

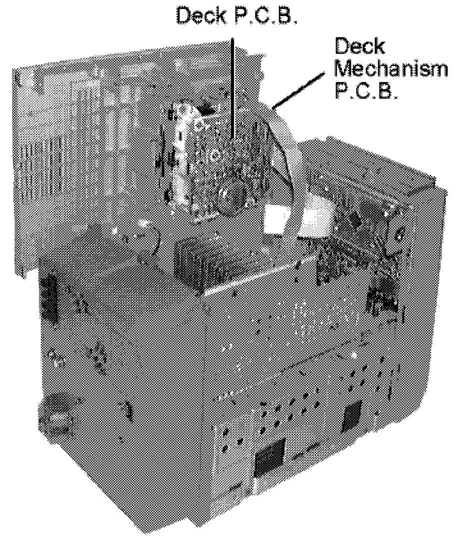
- Follow the (Step 1) - (Step 4) of Item 8.1.1.

Step 1 Remove one screw at the rear chassis.

Step 2 Release claws at both ends, and lift up the (Deck Mechanism) (Top unit).



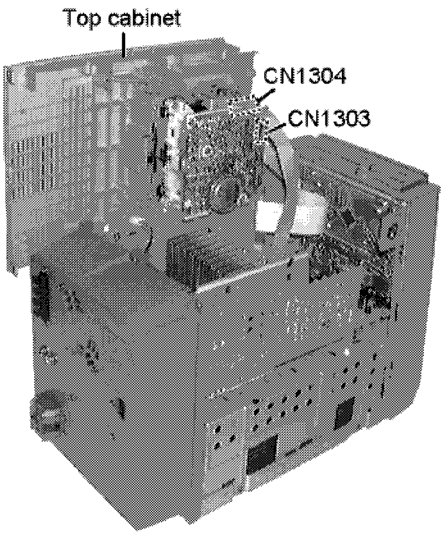
- Checking for Deck P.C.B. and Deck Mechanism P.C.B.



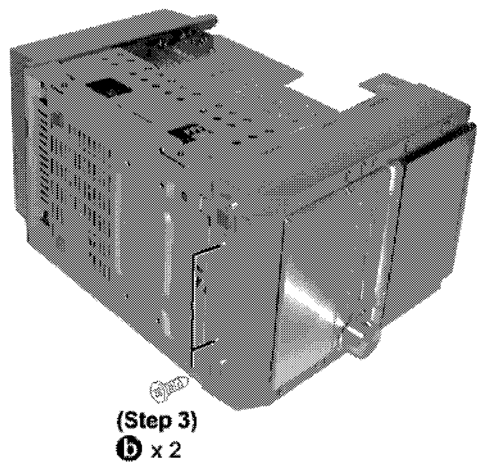
8.1.3. Checking for Panel P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.

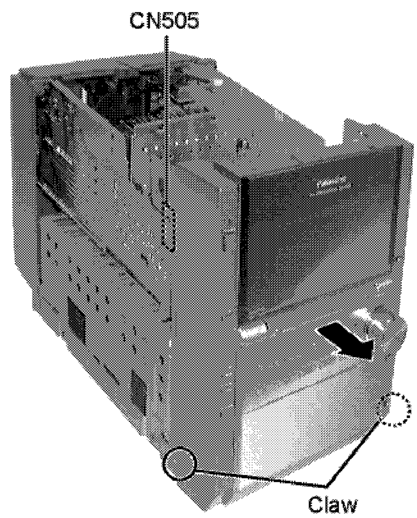
Step 1 Release connector CN1303 & CN1304. Upset the Top cabinet.



Step 2 Release 2 claws. Disconnect CN505 & CN506.



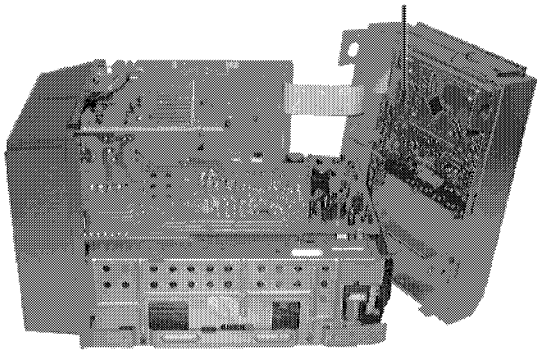
Step 3 Remove 2 screws.



Step 4 Push front panel forward as arrow shown.

Step 5 Reconnect CN1303, CN1304, CN505 and CN506 for checking operation for main unit.

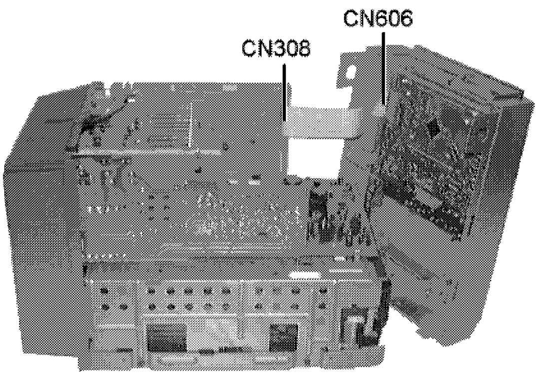
- Checking for Panel P.C.B.



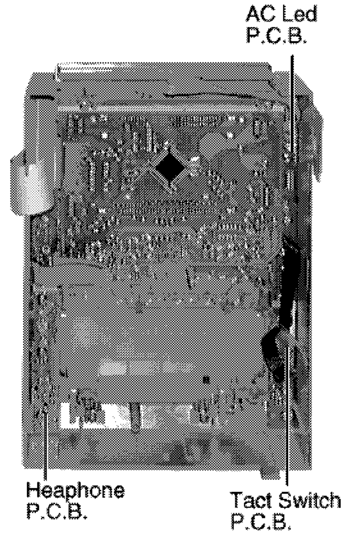
8.1.4. Checking for Headphone P.C.B., AC Led P.C.B. and Tact Switch P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.

Step 1 Disconnect CN308 and CN606.



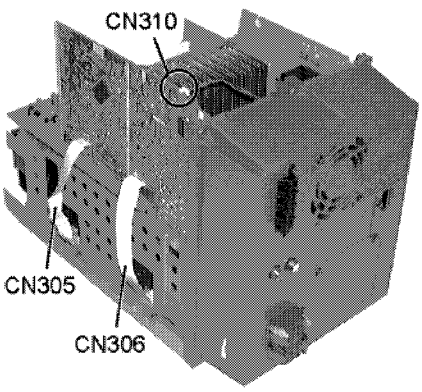
- Checking for Headphone, AC Led & Tact Switch P.C.B.



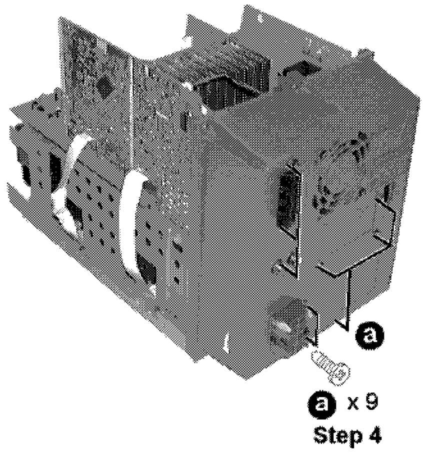
8.1.5. Checking for CD Servo P.C.B. & CD Loading P.C.B.

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.
- Follow the (Step 1) of Item 8.1.4.

Step 1 Remove FFC and connector CN310 (Fan unit).

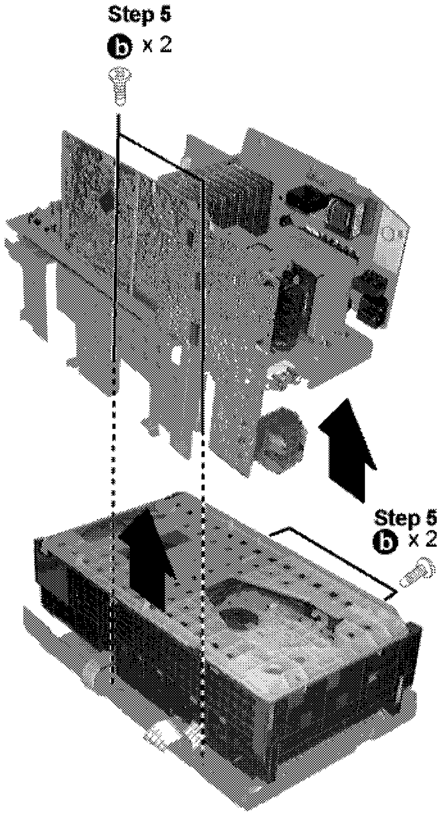


Step 2 Remove all screws (back cabinet).



Step 3 Pull the back cabinet backward.

Step 4 Remove all screws.

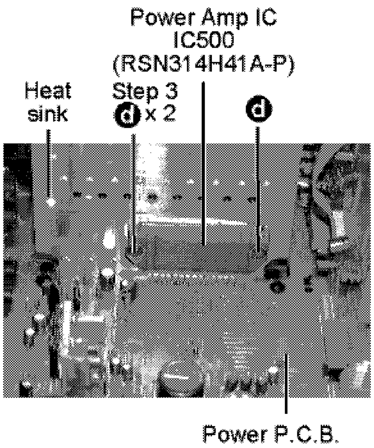


Step 5 Remove all screws.

Step 6 Lift up the middle unit as the arrow shown above.

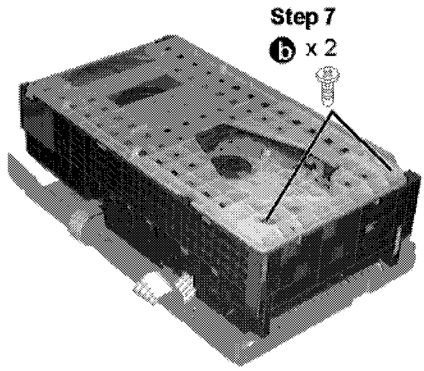
8.1.6. Replacement of the Power Amplifier IC

- **Replacement of the Power Amplifier IC**
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.
- Follow the (Step 1) of Item 8.1.4.
- Follow the (Step 1) - (Step 7) of Item 8.1.5.



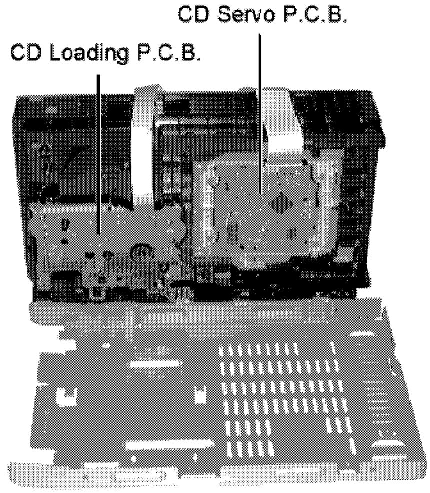
Step 1 Remove 2 connector CP501 and CP504 and pull out the Main P.C.B.

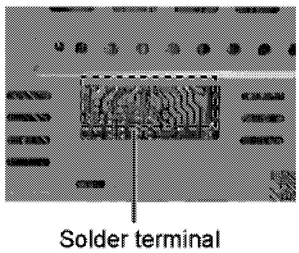
Step 2 Remove 2 screws fixed to the Power Amp I.C.



Step 7 Remove 2 screws. Upset the CD Unit sideway.

- Checking for CD Servo P.C.B. and CD Loading P.C.B.

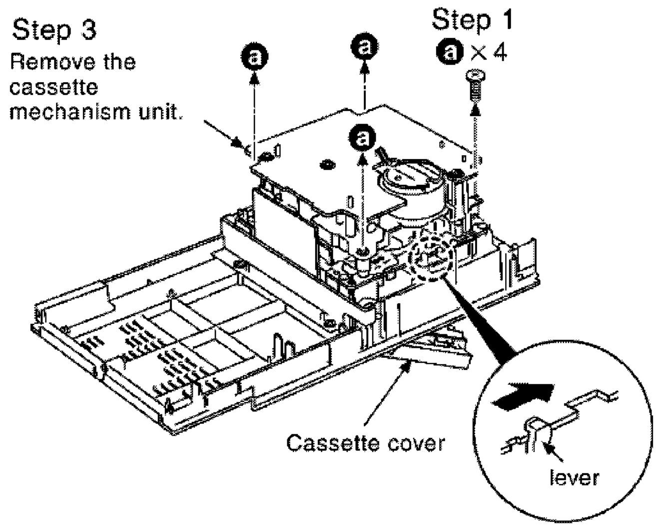


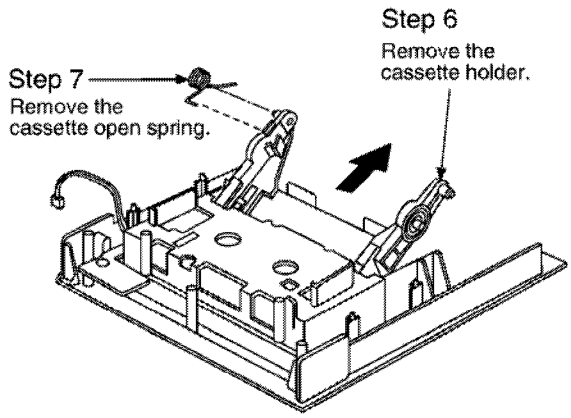


Step 4 Unsolder the terminals of Power Amp IC, and replace the component.

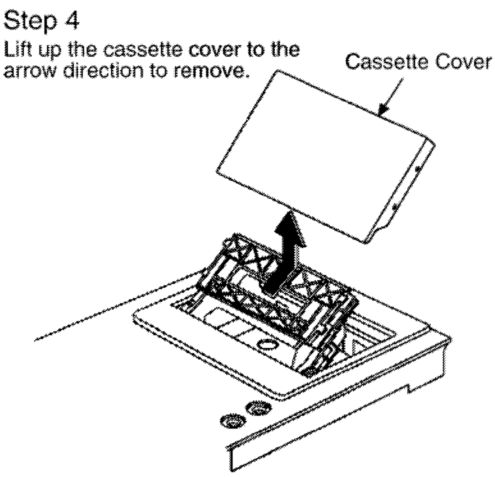
8.2. Procedure for Replacing Cassette Holder

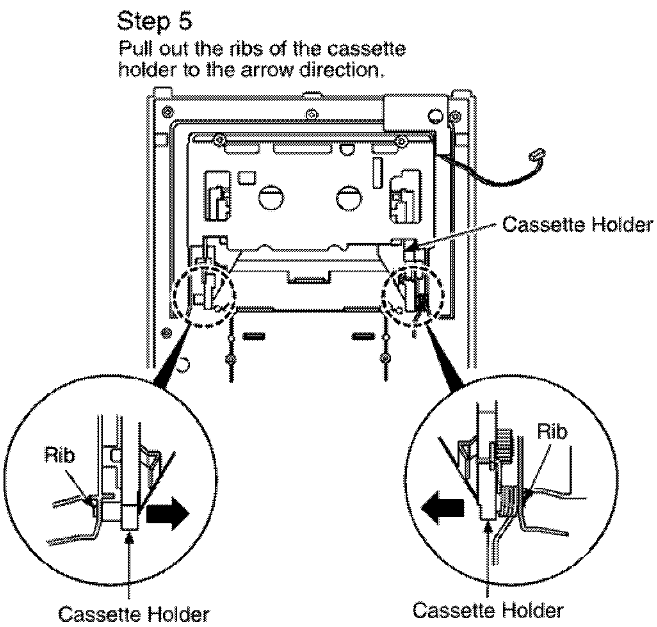
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.





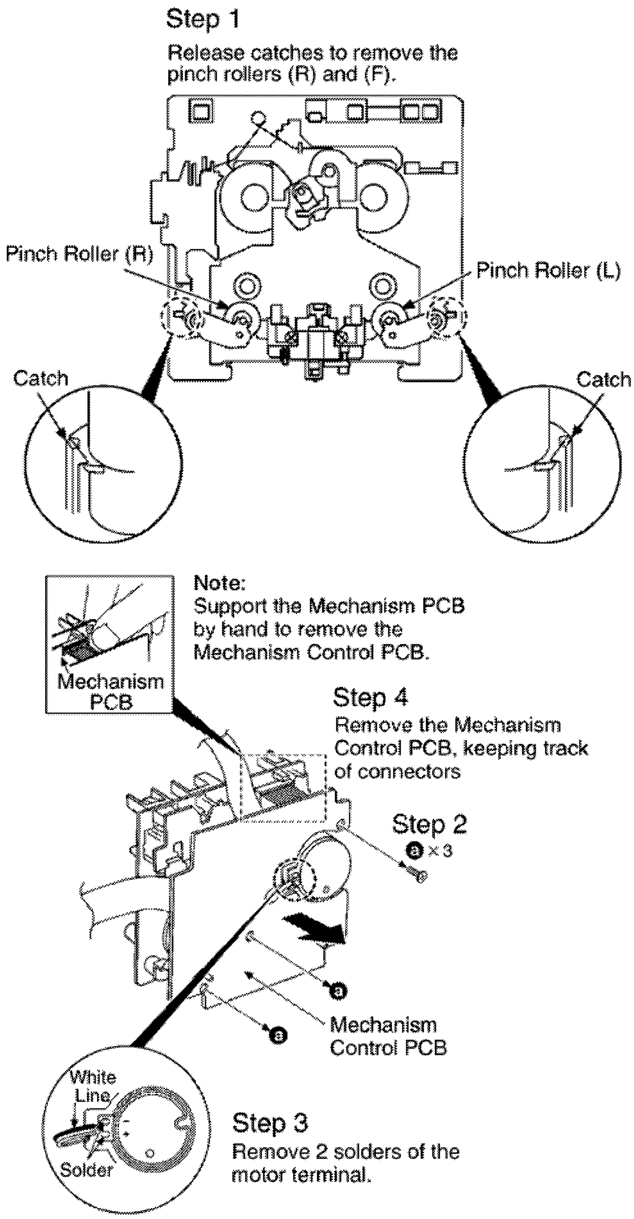
Step 2 Press the lever to open the cassette cover.

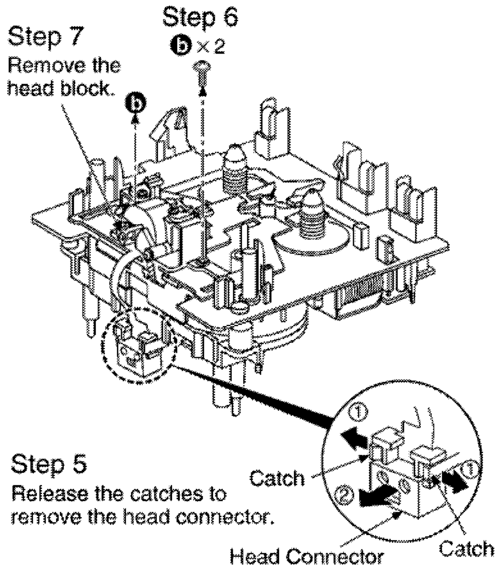




8.3. Procedure for Replacing Pinch Roller and Head Block (Cassette Mechanism Unit)

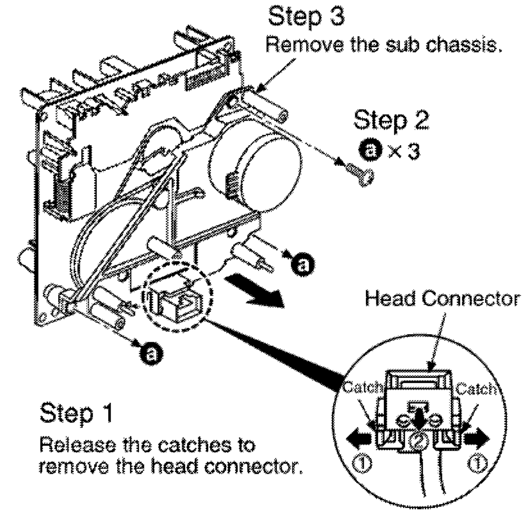
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 3) of Item 8.2.

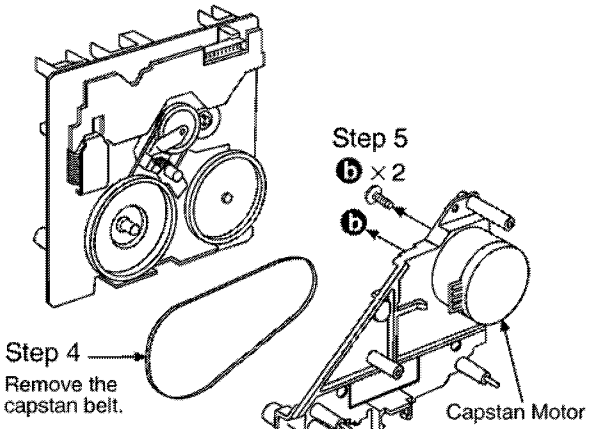


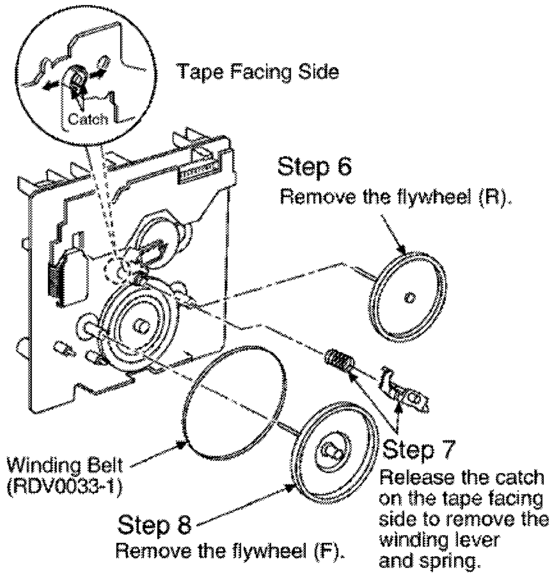


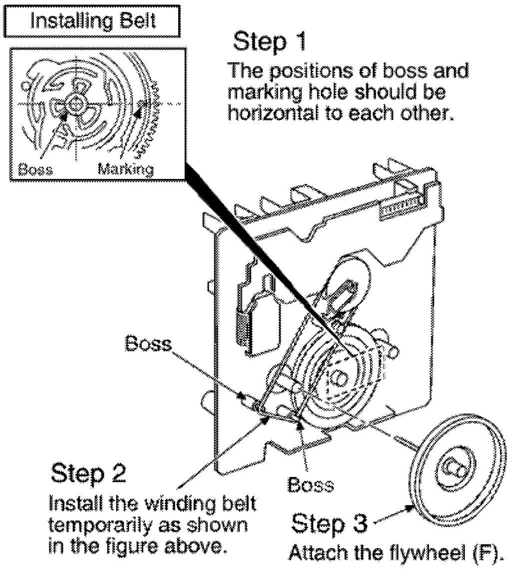
8.4. Procedure for Replacing Motor, Capstan Belt A, Capstan Belt B, and Winding Belt (Cassette Mechanism Unit)

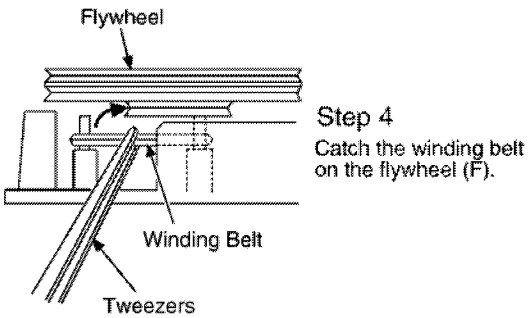
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 3) of Item 8.2.

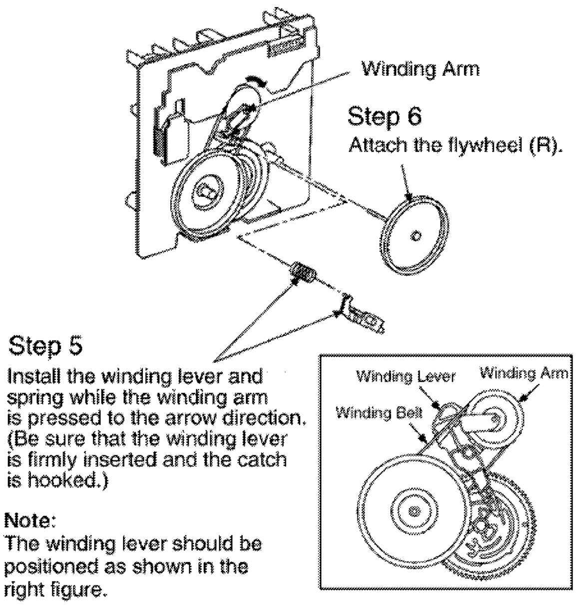


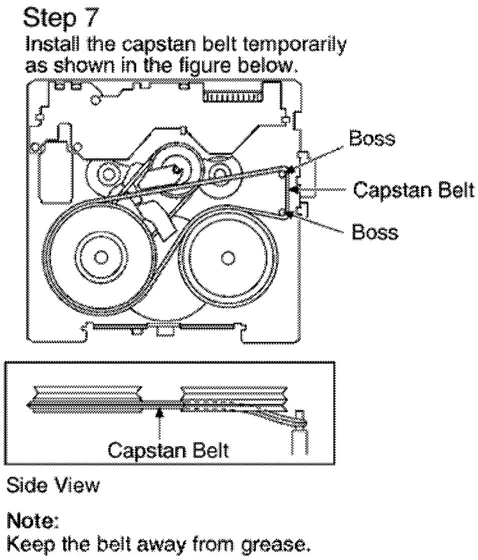


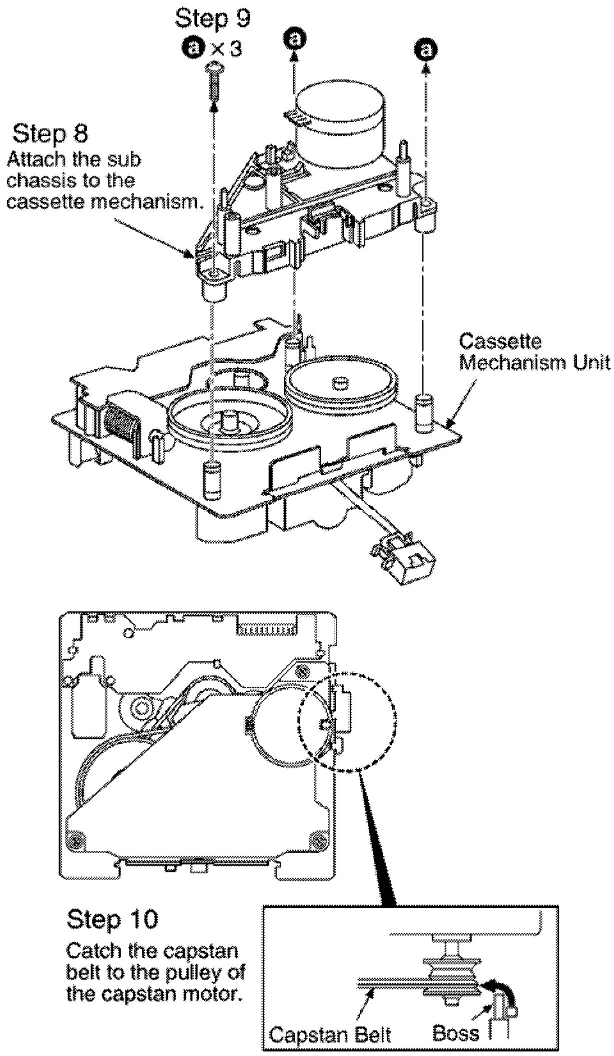






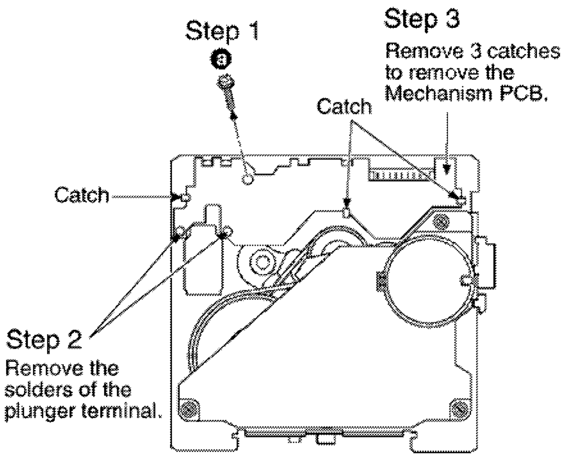






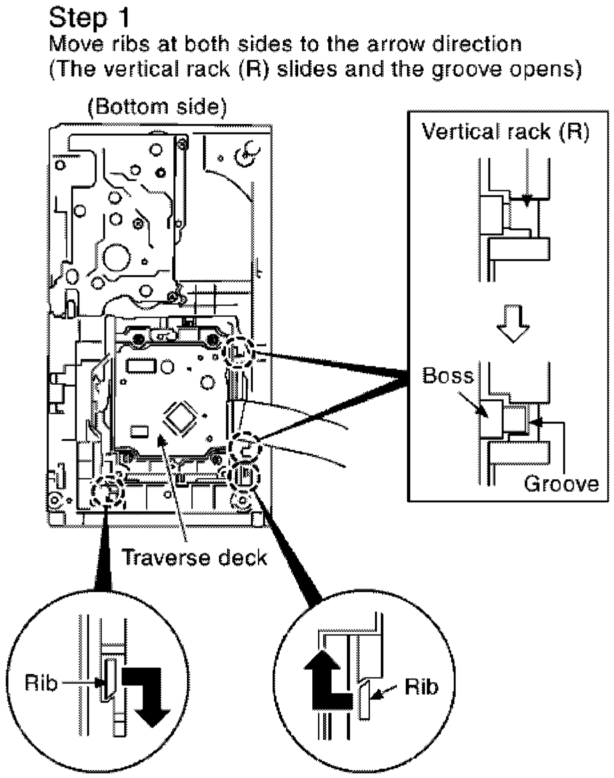
8.5. Procedure for Replacing Parts on Mechanism PCB

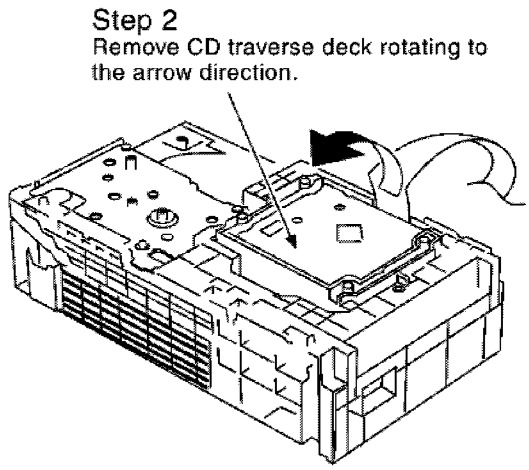
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 3) of Item 8.2.



8.6. Replacement for CD traverse deck

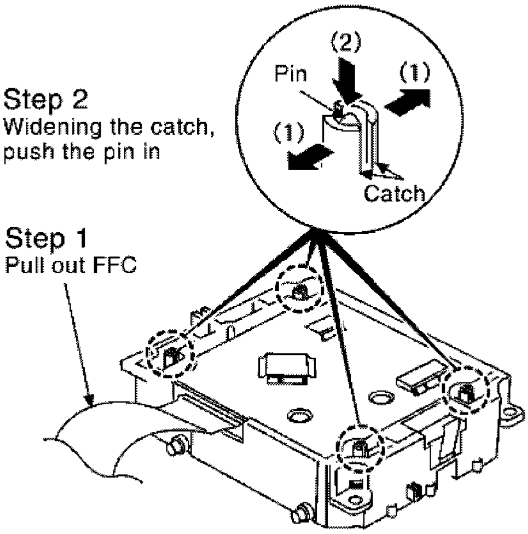
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 4) of Item 8.1.3.
- Follow the (Step 1) of Item 8.1.4.
- Follow the (Step 1) - (Step 7) of Item 8.1.5.

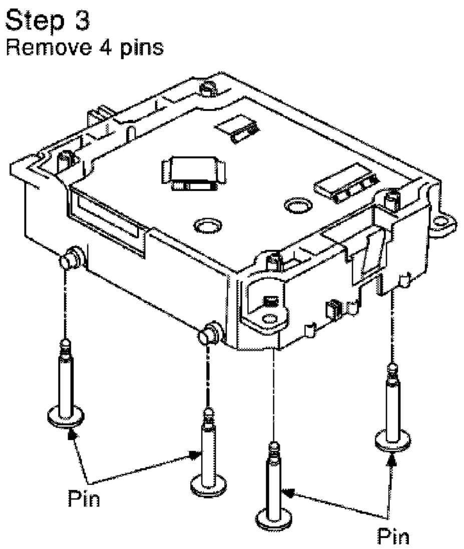


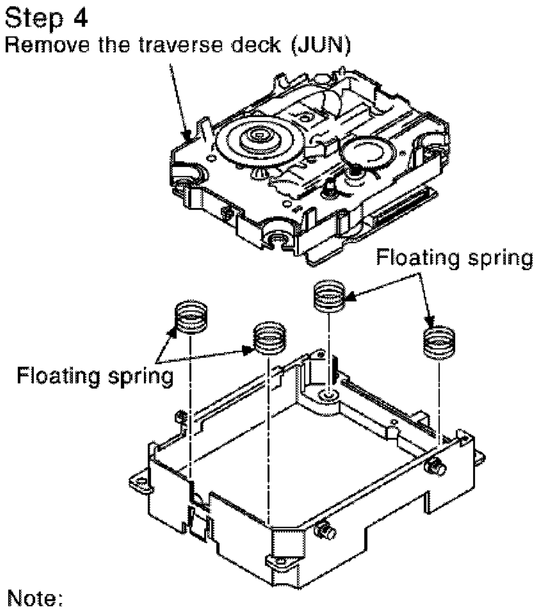


8.7. Replacement for optical pickup unit (CD mechanism)

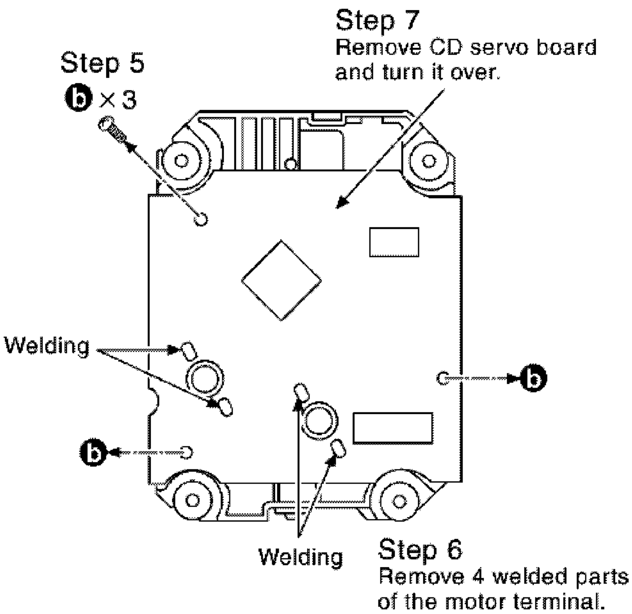
- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.1.2.
- Follow the (Step 1) - (Step 2) of Item 8.6.



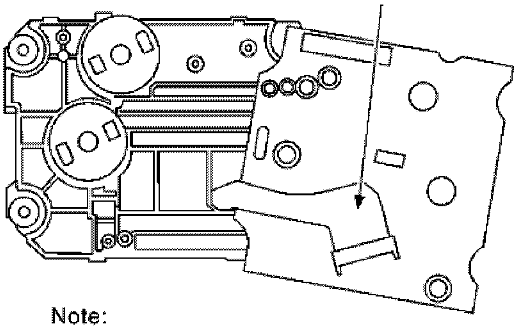




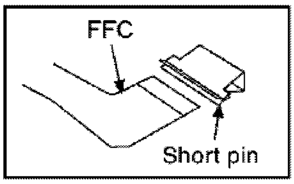
Note:
As floating springs (4 pieces) come off at the same time, be careful not to lose them.



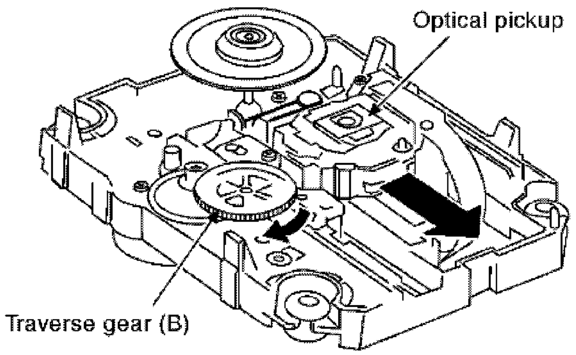
Step 8
Pull FFC out from the connector.



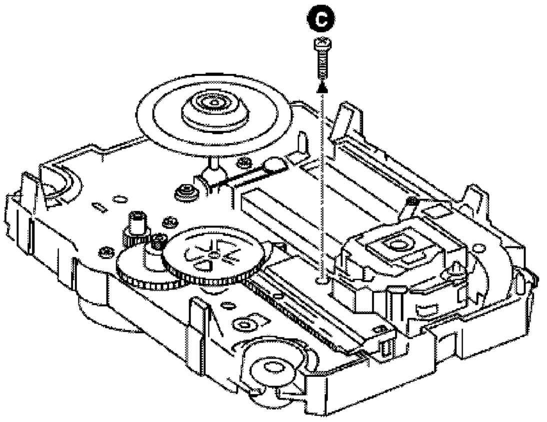
Note:
Insert a short pin into FFC of the optical pickup.
[See "Notice on handling of the optical pickup"]

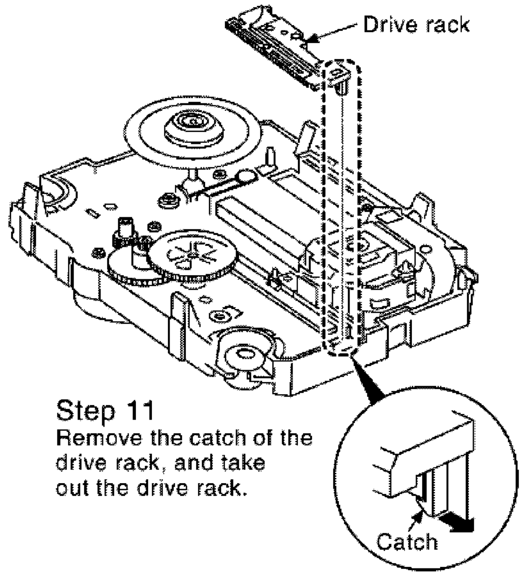


Step 9
Rotate the traverse deck (B) to the arrow direction and shift the optical pickup to the furthest backward.

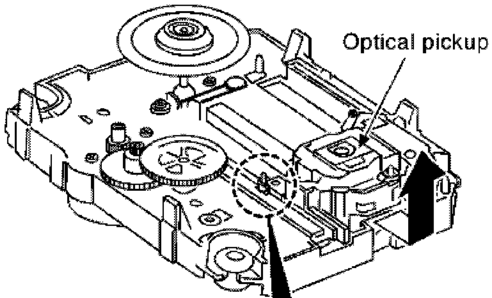


Step 10

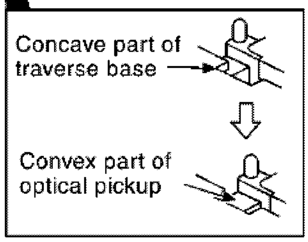


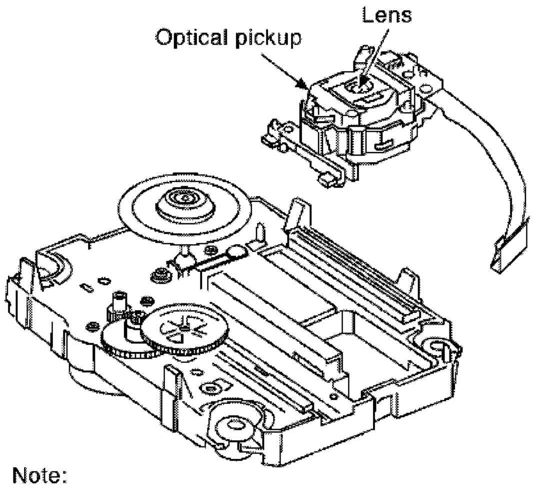


Step 11
Remove the catch of the drive rack, and take out the drive rack.



Step 12
Place the convex part of an optical pickup to the concave part of a traverse base, then take out the optical pickup.



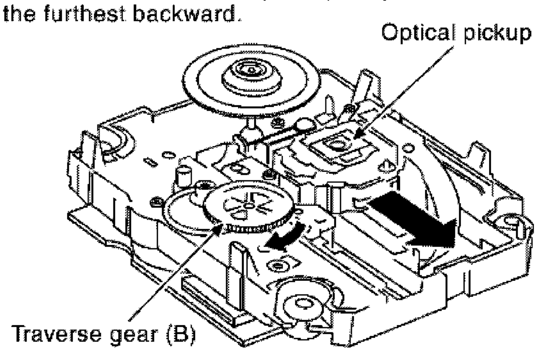


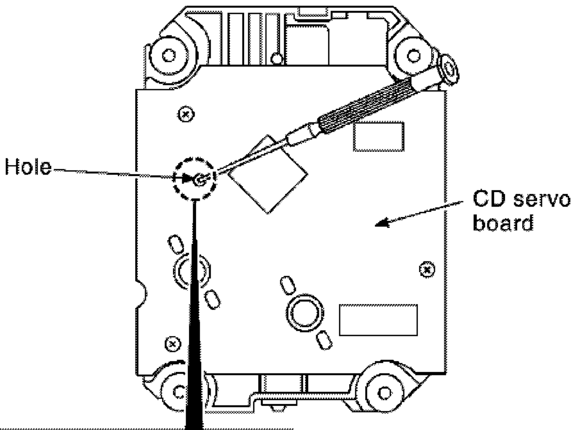
Note:
Do not touch the lens of the optical pickup

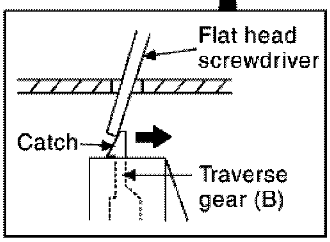
8.8. Replacement for a traverse gear A and a traverse gear B

- Follow the (Step 1) - (Step 4) of Item 8.1.1.
- Follow the (Step 1) - (Step 2) of Item 8.6.
- Follow the (Step 1) - (Step 12) of Item 8.7.

Step 1
Rotate the traverse gear (B) to the arrow direction, and shift the optical pickup to the furthest backward.





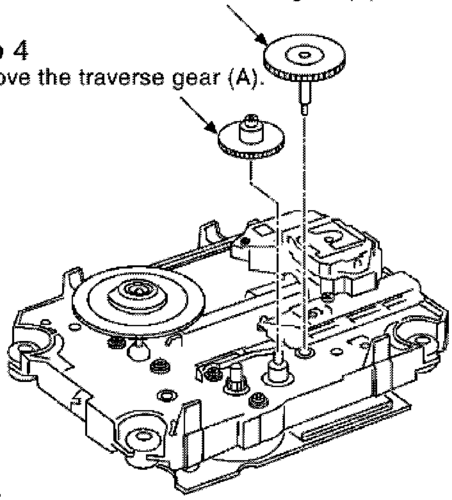


Step 2
Insert a fine edged flat head screwdriver into the hole of CD servo board and push the catch of the traverse gear (B), then pull the traverse gear (B) out.

Note:
Be careful not to break the hook of the traverse gear (B)

Step 3
Remove the traverse gear (B).

Step 4
Remove the traverse gear (A).



Note:
Do not use the removed traverse gear (B) anymore. Surely replace with a new one.

8.9. Procedure for removing CD loading mechanism

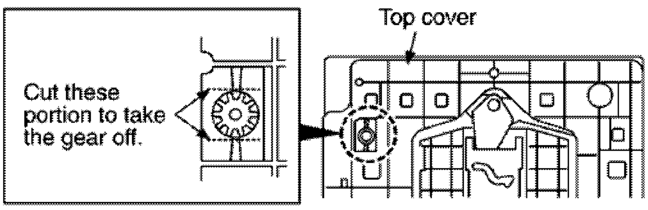
1. Turn off by pressing power SW in the body.
2. Unplug AC power cord after the indication of [GOOD-BYE], then disassemble the body.
3. Disassemble the body, and take out CD loading mechanism.
4. Perform disassembly according to the following procedure for disassembly.

8.10. CR16 mechanism disassembly procedure

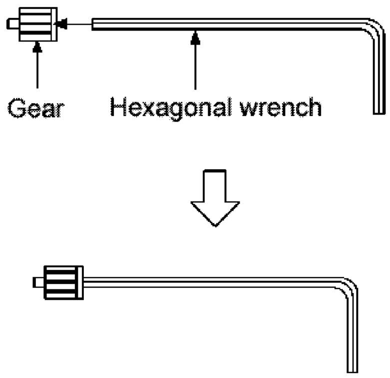
8.10.1. Gear for servicing information

- This unit has a gear which used for checking items (open/close of disc tray, up/down operation of traverse unit by manually) when servicing. (For gear information, that is described on the items for disassembly procedures.)
- For preparation of gear (for servicing), perform the procedures as follows.
- In case of re-servicing the same set, the "gear for servicing" may be took off because it had been used. So, the "gear for servicing" must be stored.

1. Remove the gear attached to top cover of CD loading mechanism.



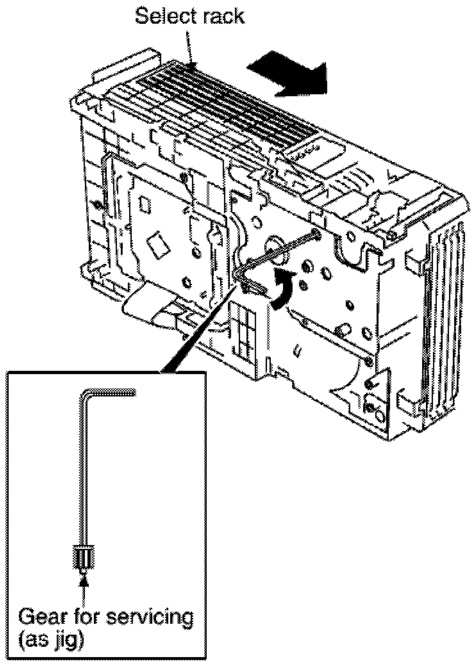
2. Insert the hexagonal wrench (2.5mm) into the gear.



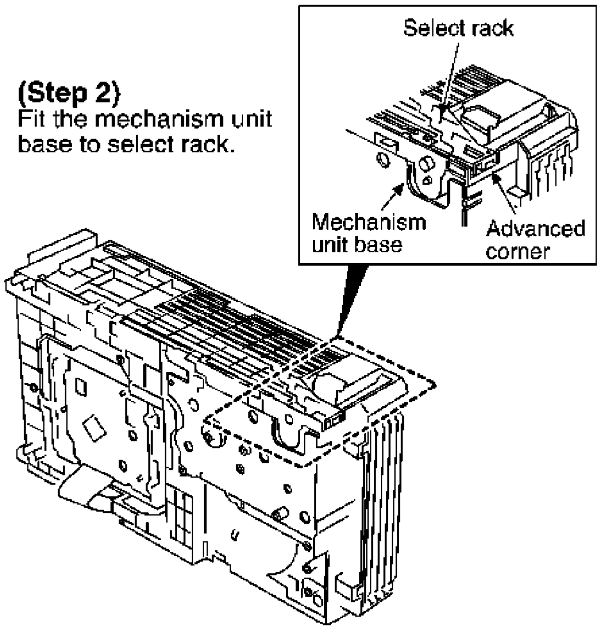
(Preparation of gear as jig is completed)

8.10.2. Replacement for the disc tray

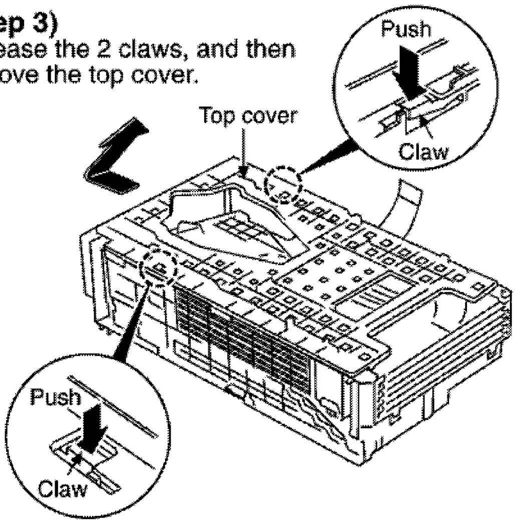
(Step 1)
Rotate the gear for servicing and move the select rack to advanced corner.



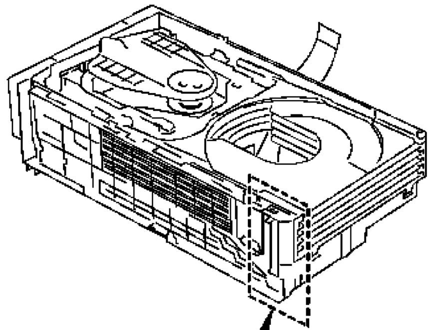
(Step 2)
Fit the mechanism unit base to select rack.



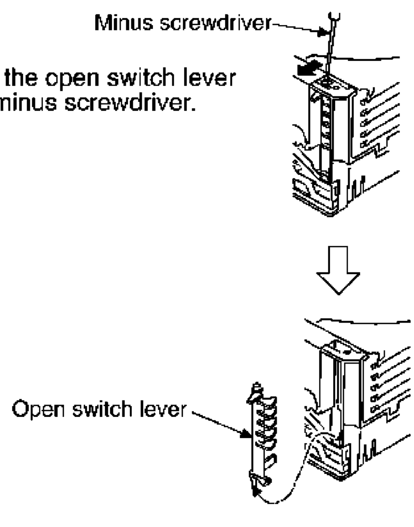
(Step 3)
Release the 2 claws, and then remove the top cover.



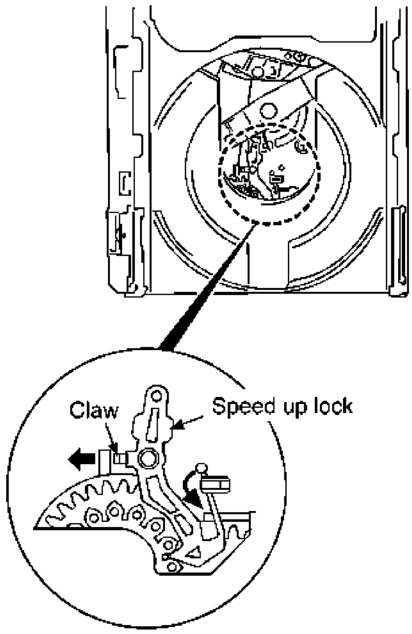
(Step 4)
Remove the open switch lever.



Push the open switch lever with minus screwdriver.



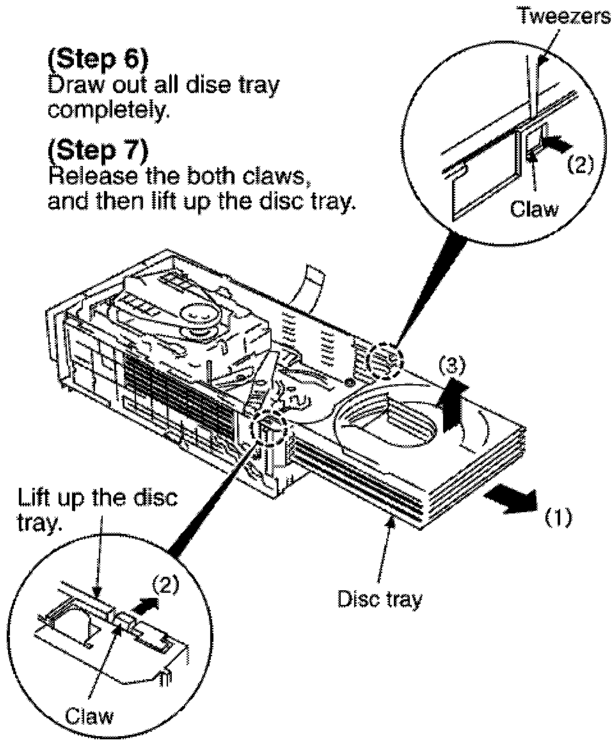
(Step 5)
Release the claw, and then remove the speed up lock.



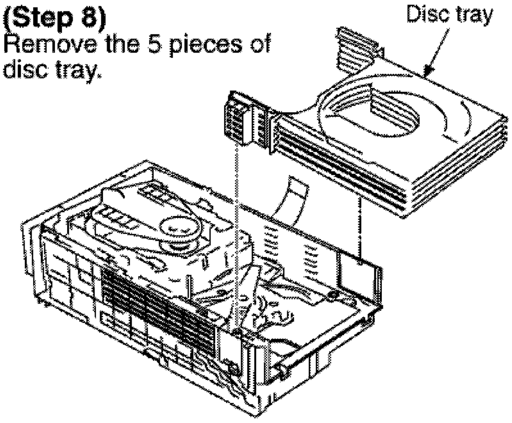
Insert the tweezers between the mechanism base and disc tray, and then lift up the disc tray.

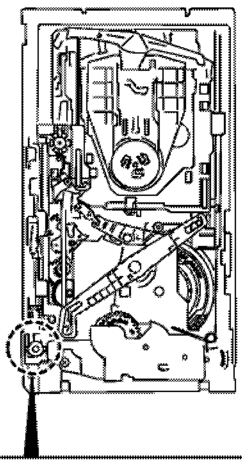
(Step 6)
Draw out all dise tray completely.

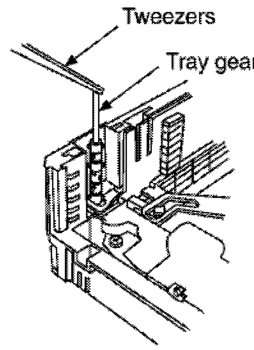
(Step 7)
Release the both claws, and then lift up the disc tray.



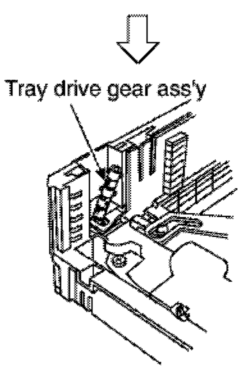
(Step 8)
Remove the 5 pieces of disc tray.







(Step 9)
Pull out the tray gear shaft with tweezers.



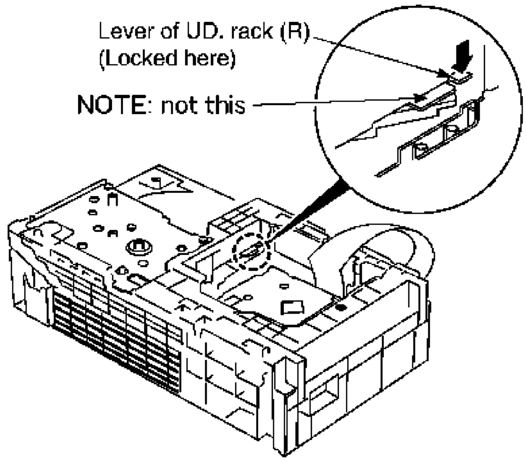
(Step 10)
Remove the tray drive gear ass'y.

8.10.3. Replacement for the traverse deck

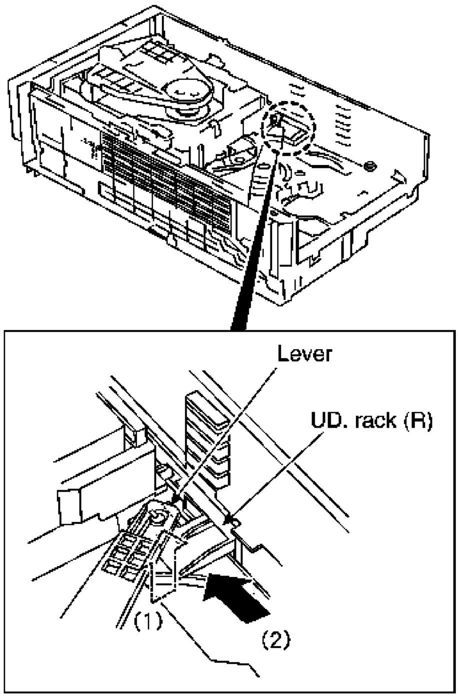
- Follow the **(Step 1)** - **(Step 10)** of item 8.10.2.

(Step 1)
Confirm the position for lever of UD. rack (R) to remove traverse unit.

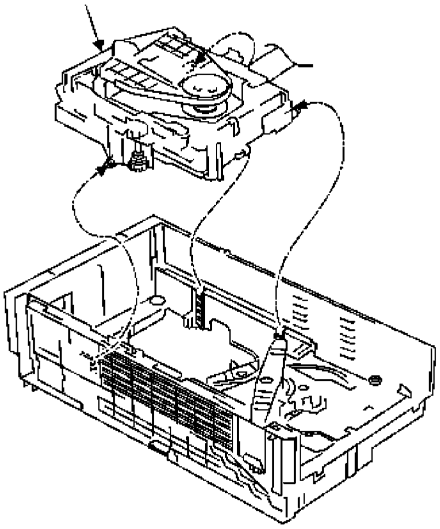
(Step 2)
Turn the unit over. (Upside: P.C.B.)



(Step 3)
Turn the unit over again, slide UD. rack (R) while pushing up the lever from the bottom.

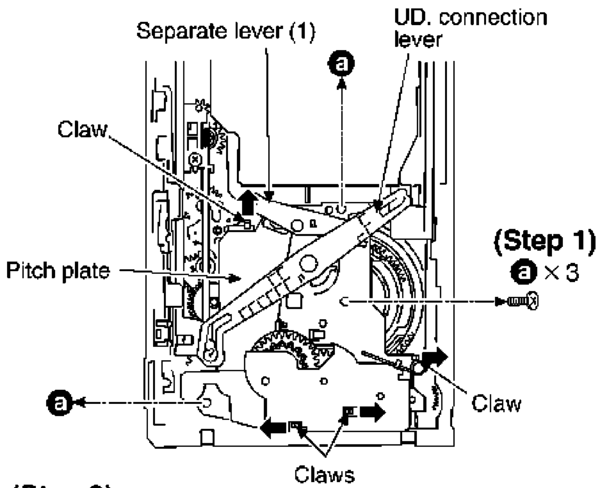


(Step 4)
Remove the traverse unit.



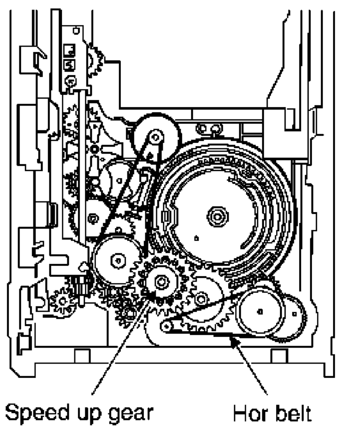
8.10.4. Disassembly for CD loading unit

- Follow the **(Step 1)** - **(Step 10)** of item 8.10.2.
- Follow the **(Step 1)** - **(Step 4)** of item 8.10.3.

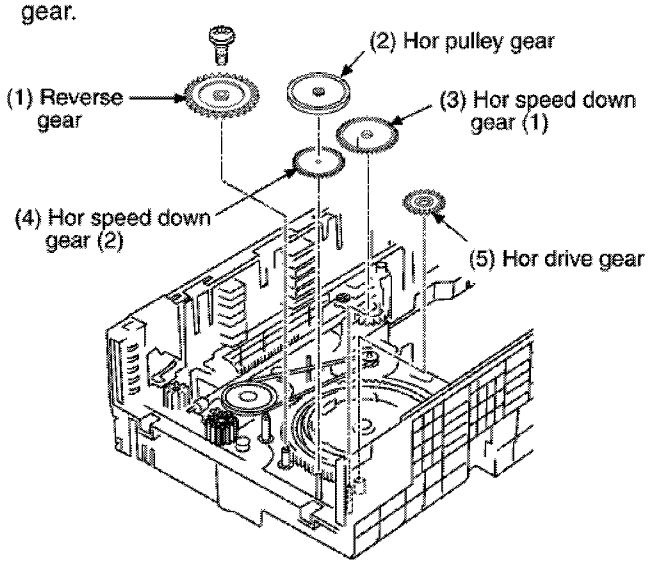


(Step 2)
Release the 4 claws, and then remove the pitch plate together with separate lever (1) and UD. connection lever.

(Step 3)
Remove the speed up gear and hor belt.

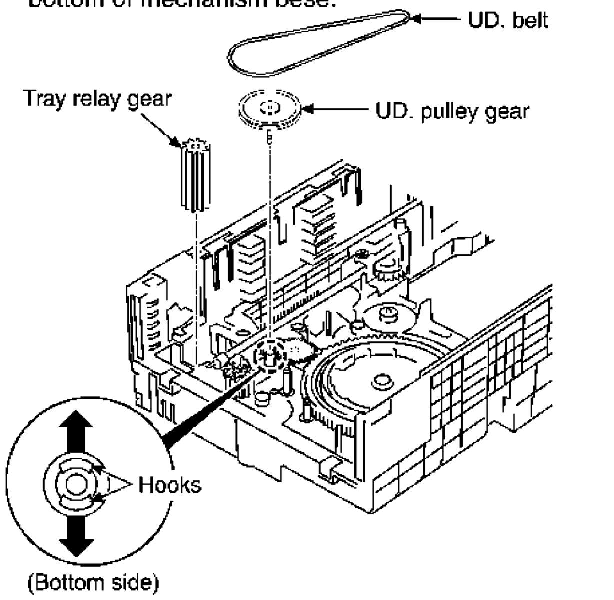


(Step 4)
Remove the reverse gear, hor pulley gear, hor speed down gear (1), hor speed down gear (2) and hor drive gear.

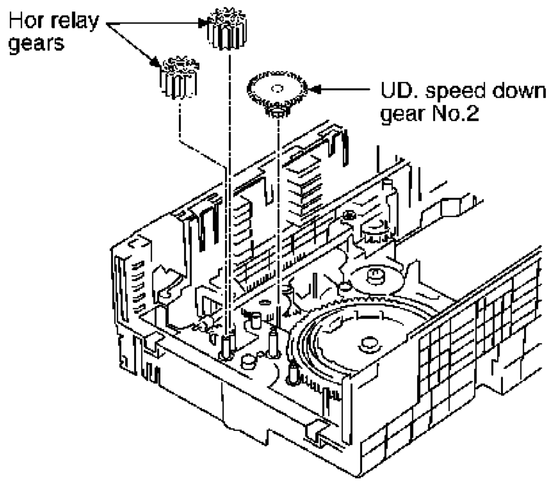


(Step 5)
Remove the UD. belt and tray relay gear.

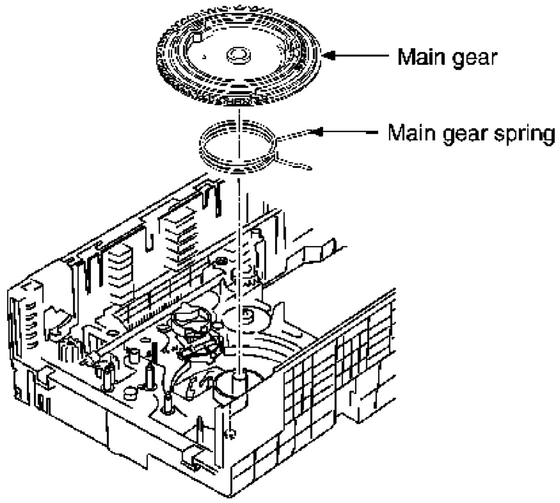
(Step 6)
Pull out the UD. pulley gear, loosen 2 hooks of the bottom of mechanism bese.



(Step 7)
Remove the 2 hor relay gears and UD. speed down gear No.2.

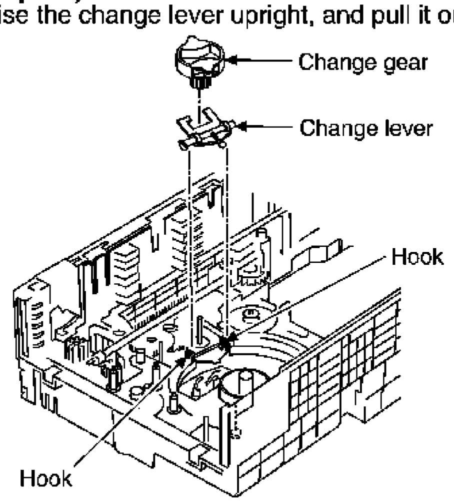


(Step 8)
Remove the main gear and main gear spring.

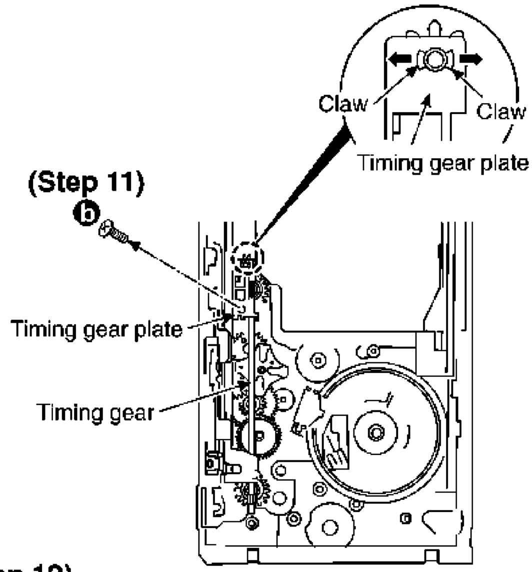


(Step 9)
Remove the change gear.

(Step 10)
Raise the change lever upright, and pull it out of hook.



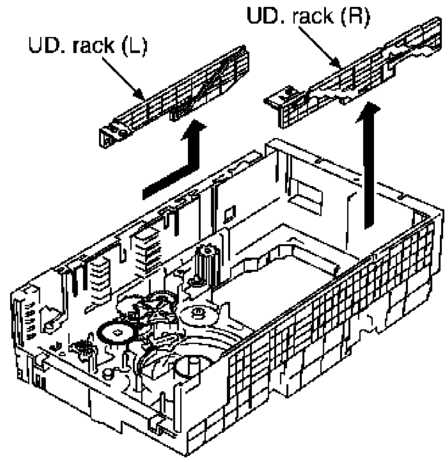
(Step 11)



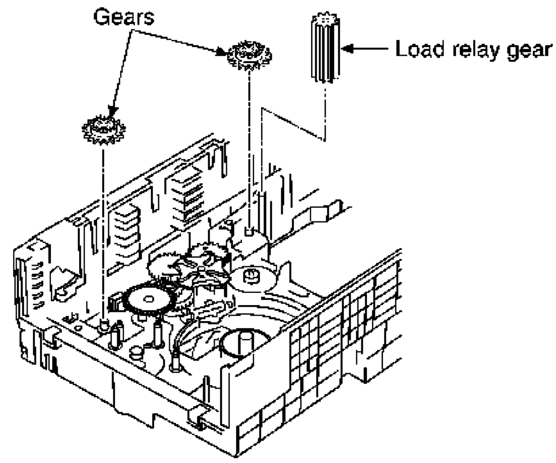
(Step 12)
Release the 2 claws, and then remove the timing gear and timing gear plate.

(Step 13)
Move the UD. rack (L) to backward, and then remove it.

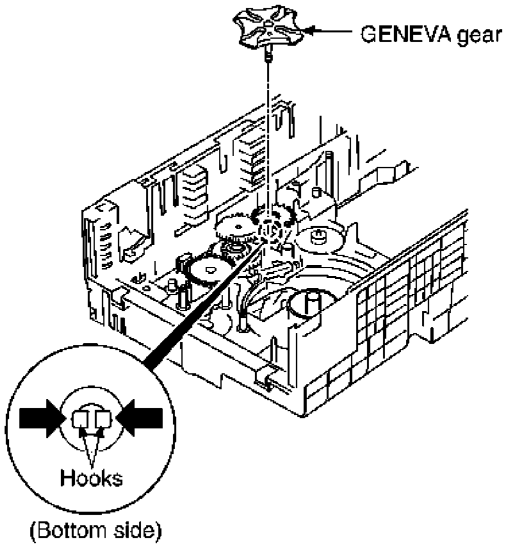
(Step 14)
Remove the UD. rack (R).



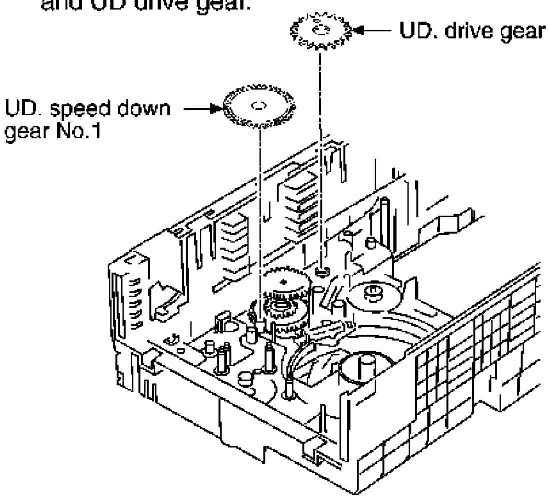
(Step 15)
Remove the 2 gears and load relay gear.



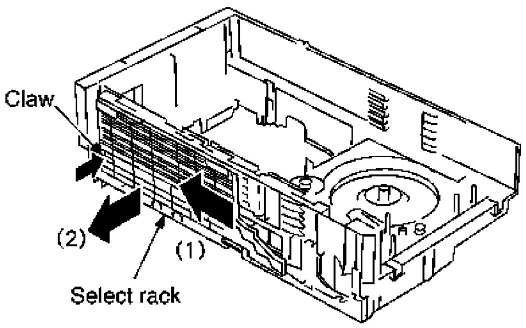
(Step 16)
Pull out the GENEVA gear, loosen 2 hooks of the bottom of mechanism base.

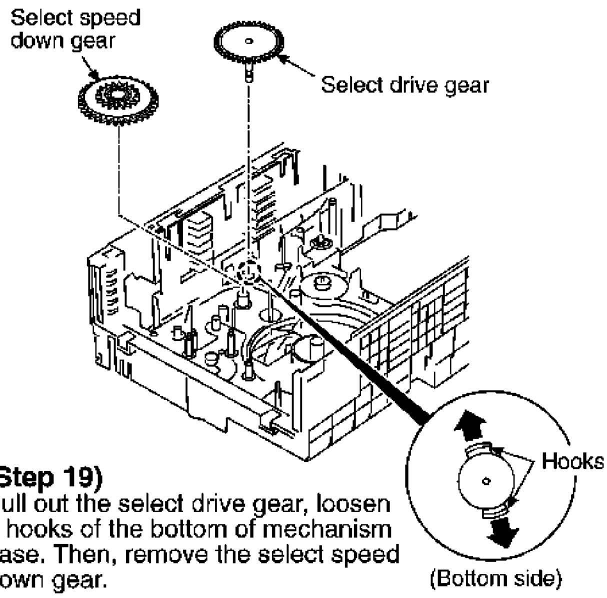


(Step 17)
Remove the UD. speed down gear No.1 and UD drive gear.



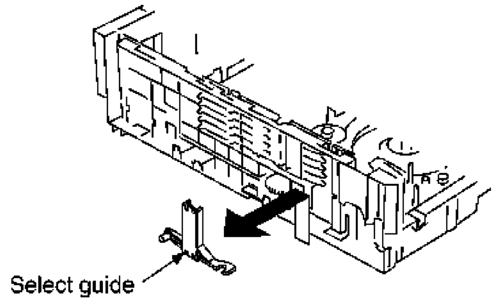
(Step 18)
Slide the select rack to the edge direction of the arrow (1). Push the claw and pull out to arrow (2) while sliding the select rack to the arrow (1).



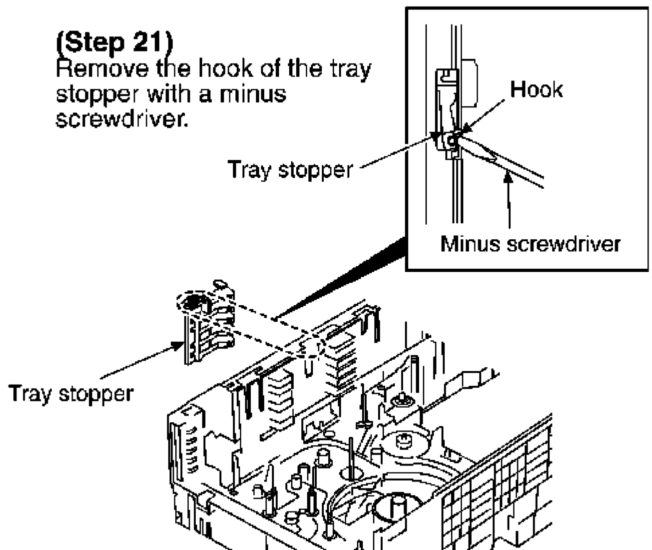


(Step 19)
Pull out the select drive gear, loosen 2 hooks of the bottom of mechanism base. Then, remove the select speed down gear.

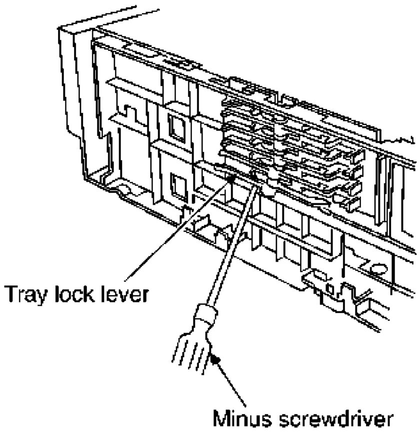
(Step 20)
Remove the select guide after sliding upside.



(Step 21)
Remove the hook of the tray stopper with a minus screwdriver.



(Step 22)
Remove the bottom of the tray lock lever with a minus screwdriver and others.

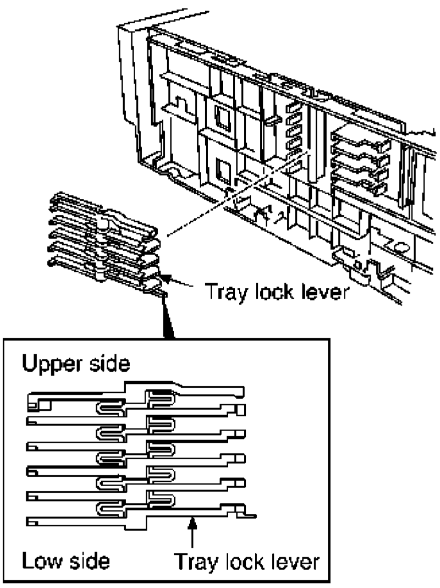


8.11. CR16 MECHANISM ASSEMBLY PROCEDURE

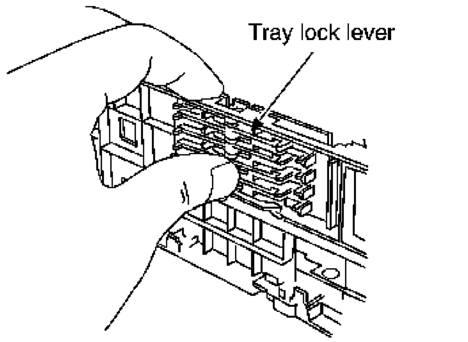
The following specified greases and/or oil must be applied when some specific parts are changed.

1. Floil grease (VFK1298) : The floil grease must be applied to tray, tray (L) and tray (R).
2. Hanarl oil (VFK1700) : The hanarl oil must be applied to any parts with grease other than the said parts.

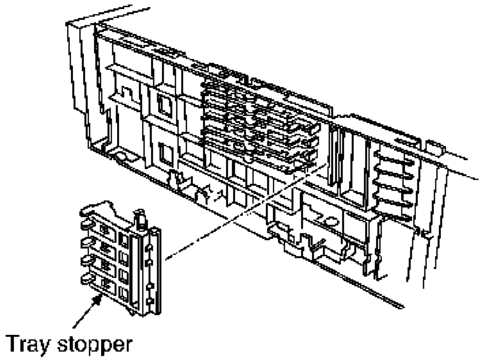
(Step 1)
Install the tray lock lever to mechanism base.



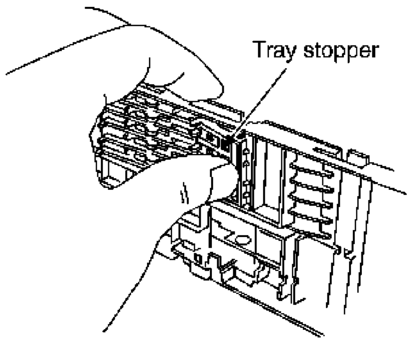
(Step 2)
Push the tray lock lever with a hand and install it.



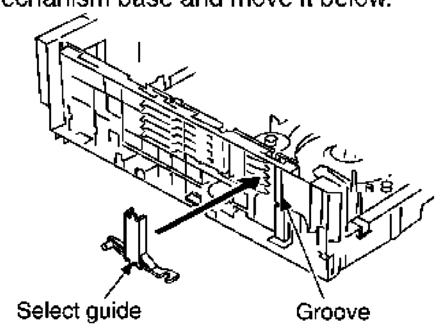
(Step 3)
Install the tray stopper to mechanism bese.



(Step 4)
Push the tray stopper with a hand and install it.

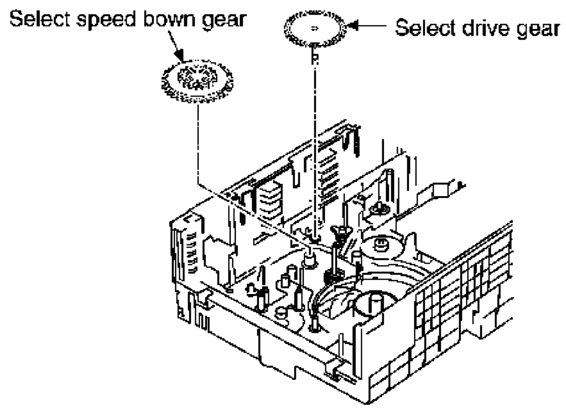


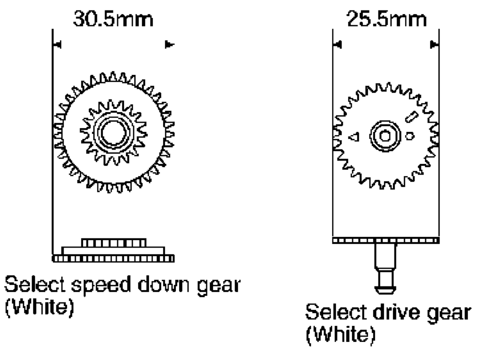
(Step 5)
Insert the select guide with a groove of the mechanism base and move it below.



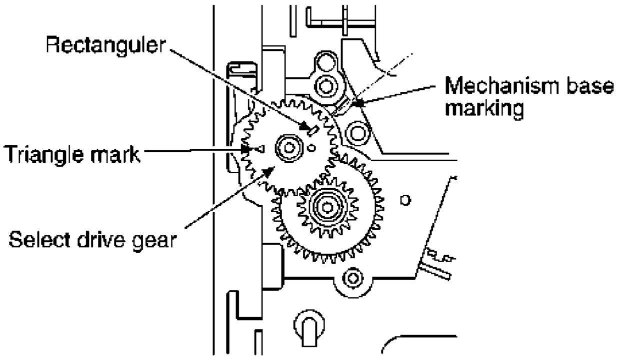
(Step 6)
Install the select speed down gear to mechanism base.

(Step 7)
Install the select drive gear to mechanism base.





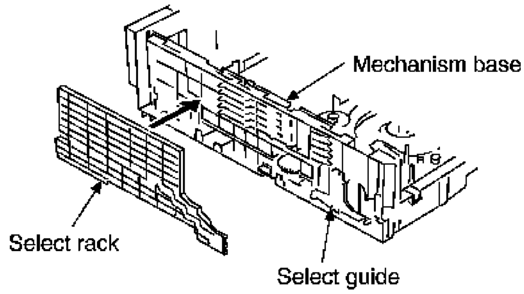
(Step 8)
Fit a mechanism base marking to the rectanguler mark of gear so that the triangle mark can indicate the sideward direction.



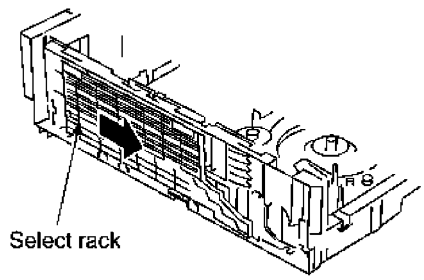
(Step 9)
Install the select rack to mechanism base.

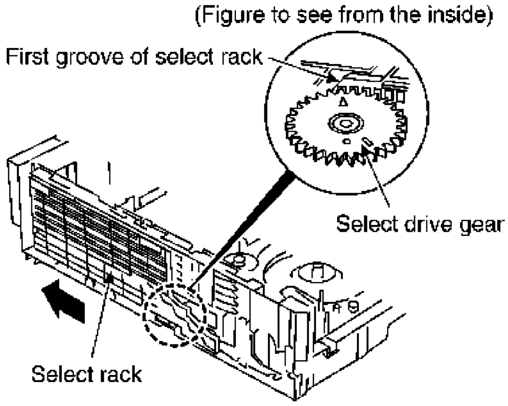
(Checking items before the installation.
1. Check select guide is completely in lowest position.
2. Check its phase of select drive gear is correct position.(Rectangle/Trianguler mark)(Refer to Step 8))

1. Put a select rack down with it fitted to its circumference of mechanism base.



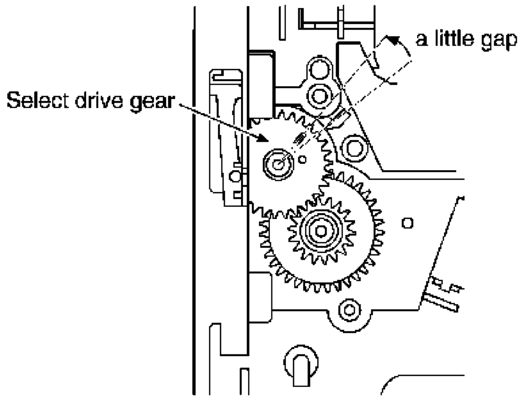
2. Slide the select rack with it's pushing to a little right direction and install it.



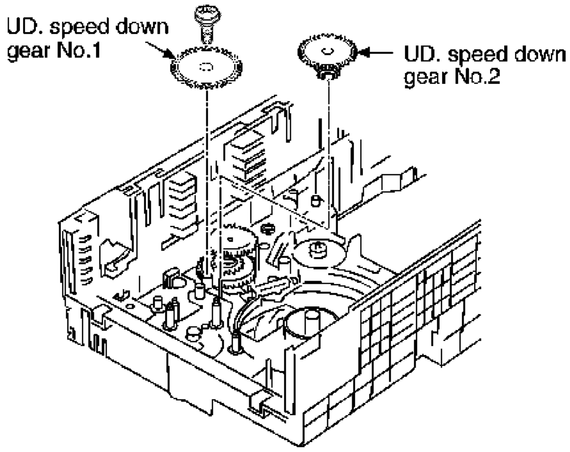


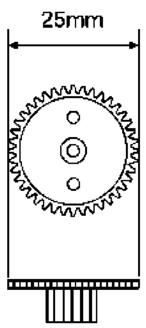
3. Check whether its end of triangular mark is in first groove of select rack, after fixing.
4. After insertion of select rack, continue the following work until the indication that it gose forward. And, all the while it must be checked that select rack is in the extreme end.

5. After insertion the select rack, the marking of select gear has a little gap when it is in the extreme end.

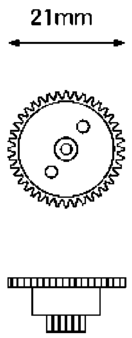


(Step 10)
Install the UD. speed down gear No.1 and UD. speed down gear No.2.



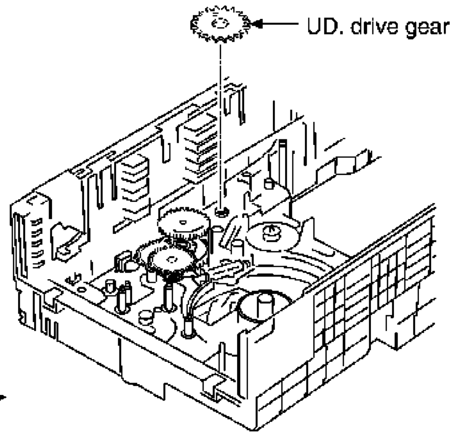


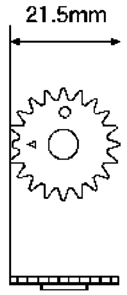
UD. speed down gear No.1
(White)



UD. speed down gear No.2
(Semi-transparent)

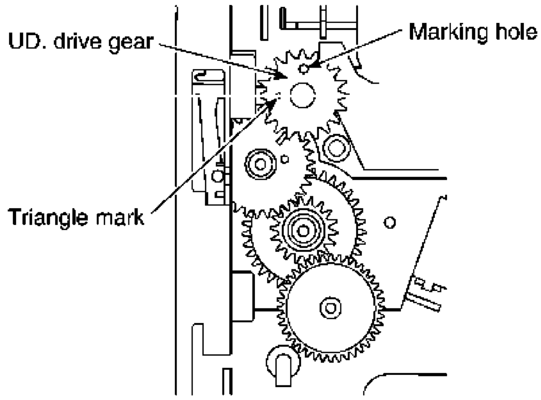
(Step 11)
Install the UD. drive gear to mechanism base.



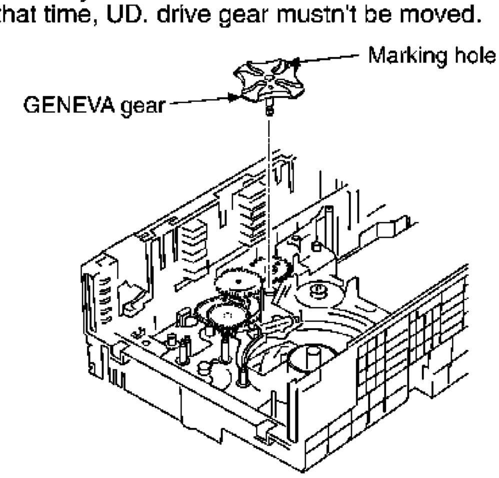


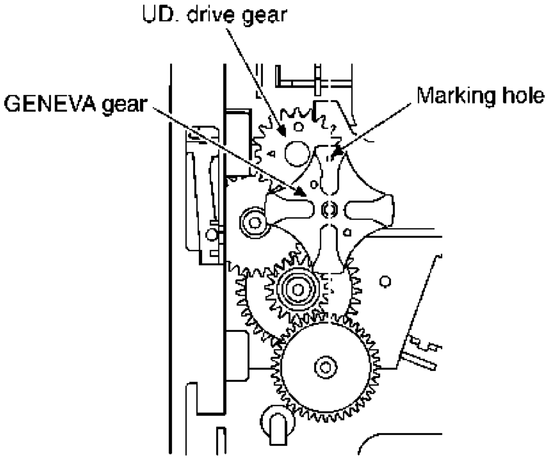
UD drive gear
(White)

(Step 12)
Insert the UD. drive gear with its marking hole upward.
At that time, its triangle mark should be sideways.

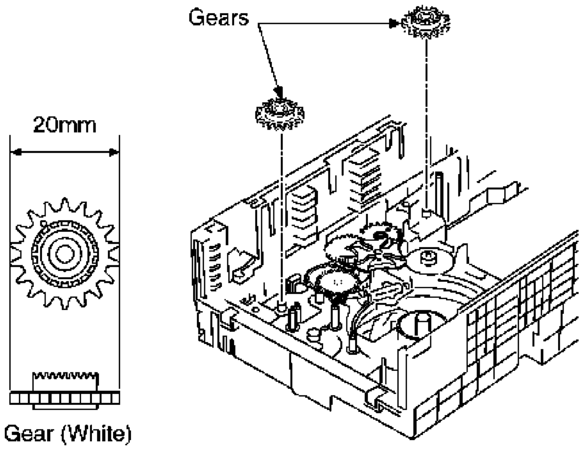


(Step 13)
Insert the GENEVA gear with its marking hole upward, and fix it by 2 hooks on bottom of mechanism base.
At that time, UD. drive gear mustn't be moved.

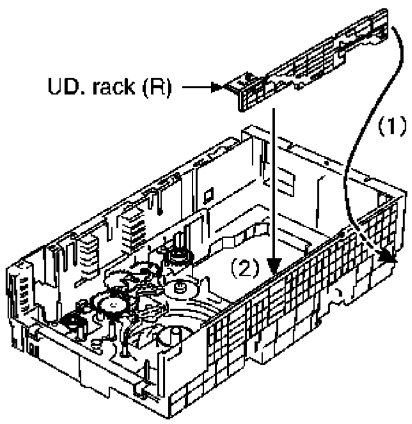




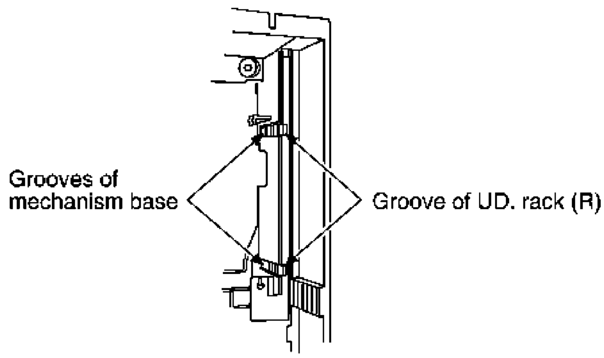
(Step 14)
Install the 2 gears to mechanism base.

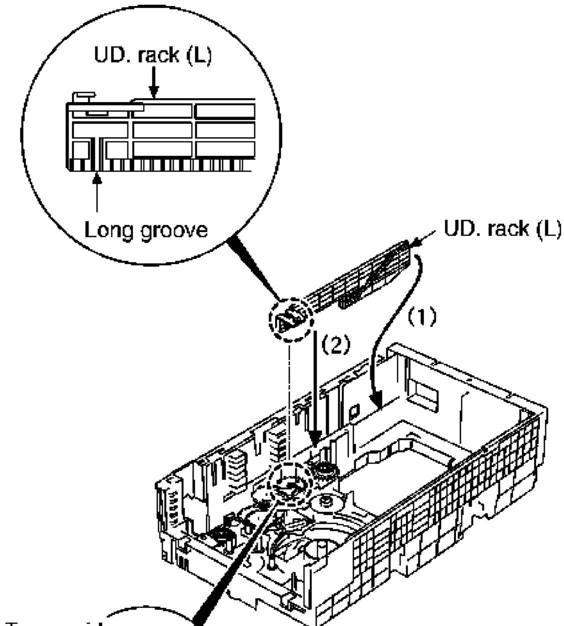


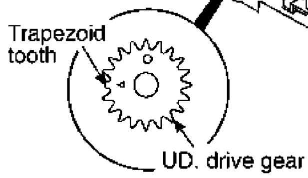
(Step 15)
Insert the UD. rack (R) to (2) from arrow (1).



NOTE:
Put a groove of the mechanism base to the UD. rack (R).

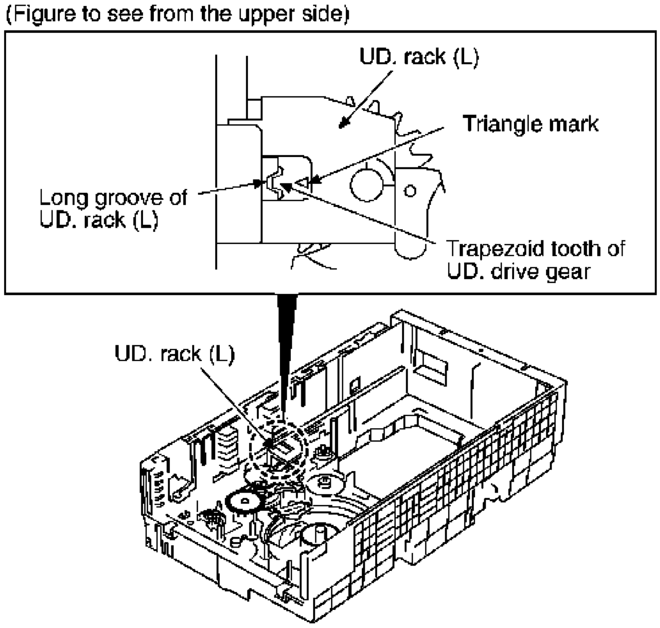




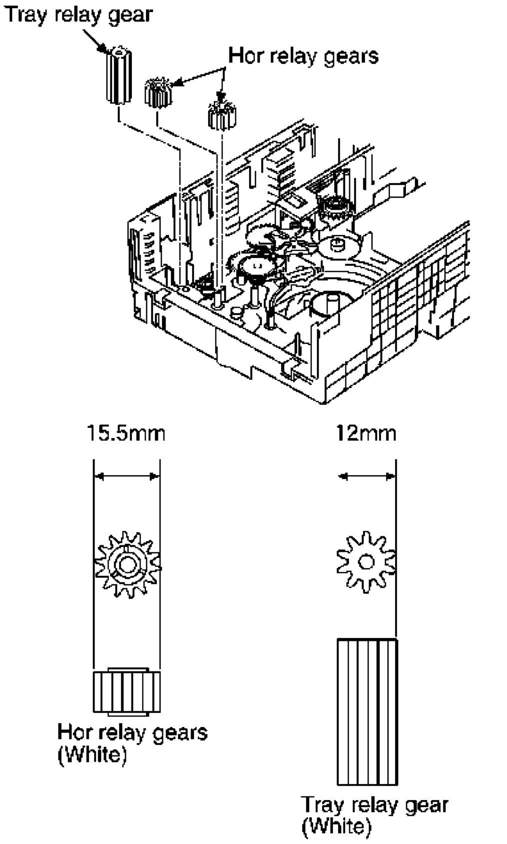


(Step 16)
Align the trapezoid tooth of UD. drive gear with long groove of UD. rack (L), and then fix UD rack (L) in mechanism base.

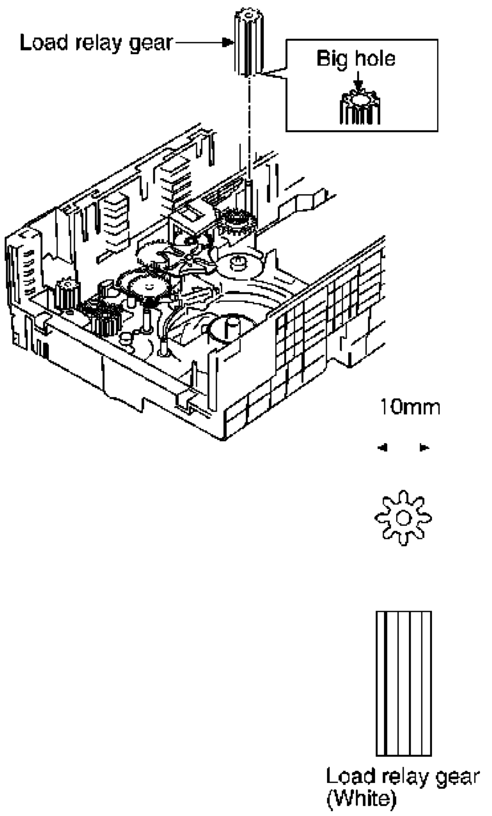
(Figure to see from the upper side)



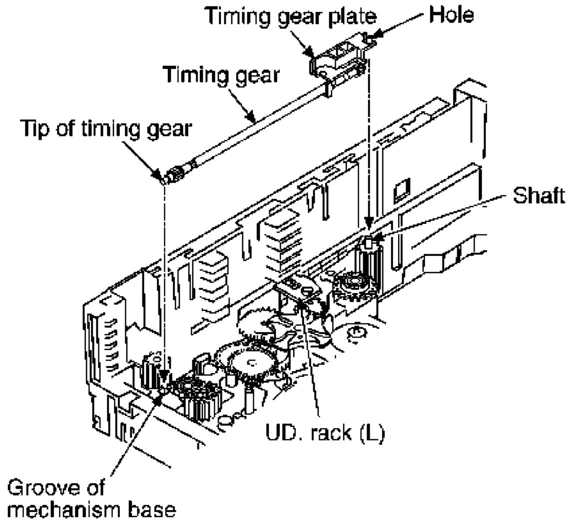
(Step 17)
Install the tray relay gear and 2 hor relay gears.



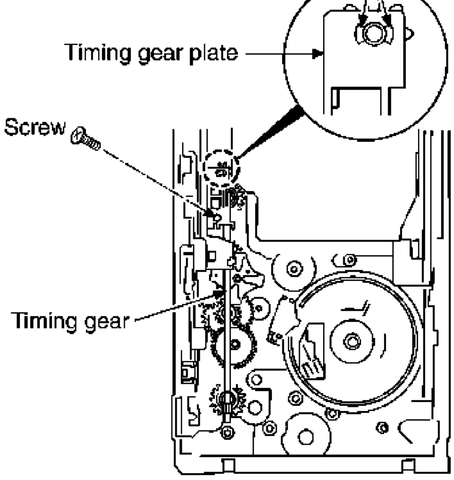
(Step 18)
Install the load relay gear to mechanism base.
(Fit load relay gear with its big hole downward.)



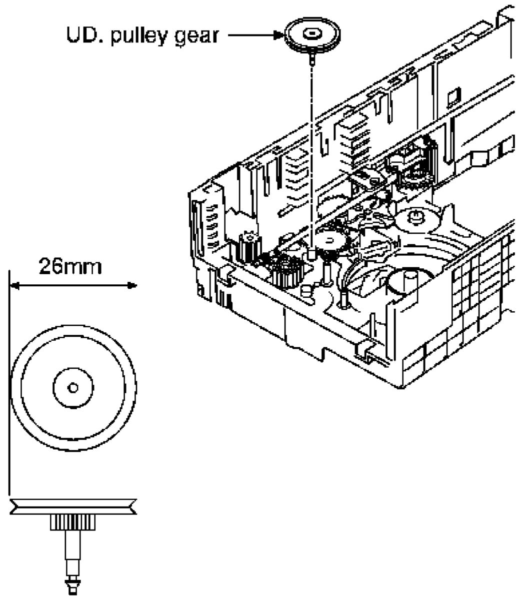
(Step 19)
Put on the top of the timing gear, then, install the timing gear and it's plate.
At that time avoid the UD. rack (L).



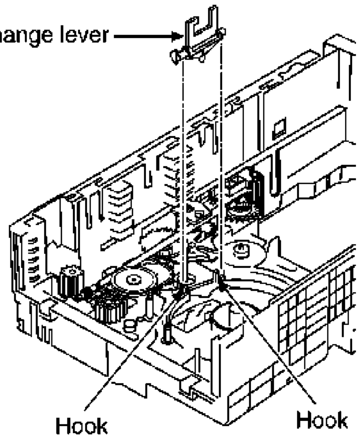
(Step 20)
Fix 2 claws and a screw to fix the timing gear and it's plate.



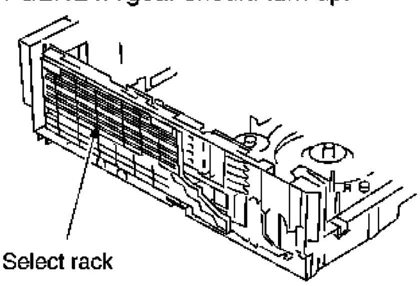
(Step 21)
Install the UD. pulley gear to mechanism base.

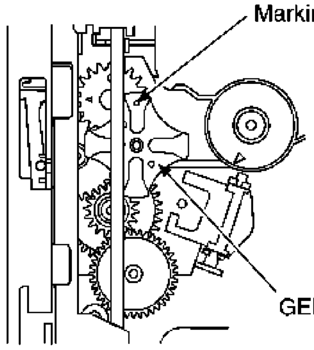


(Step 22)
Insert the change lever with it upright.

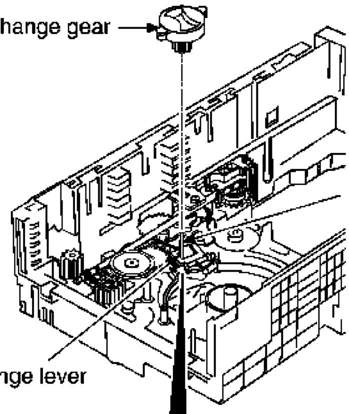


(Step 23)
Be sure the notice of bellow before fixing the change gear.
1. Select track should be in the rear of mechanism base.
2. Its hole of GENEVA gear should turn up.

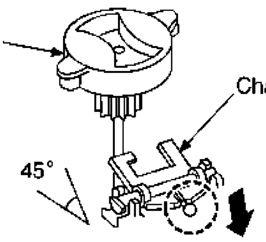




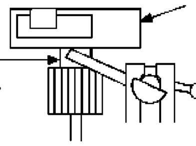
(Step 24)
Install the change gear as insert the change lever into the groove of change gear.



1. Pushing the ◯ part and pull up the change lever 45°.

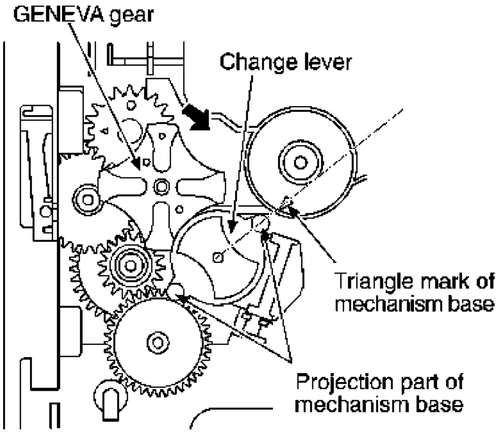


2. Insert the change lever into the groove of change gear.

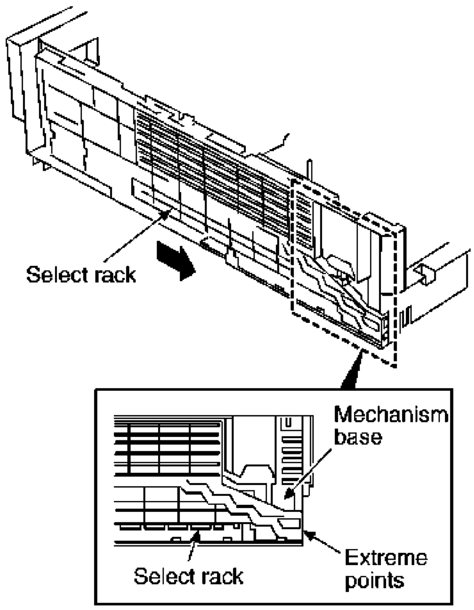


(Step 25)
Put change gear down with projection part of change gear fitted to triangle mark of mechanism base, when fixing change gear.
At that time, check change gear is inserted into the groove of change lever.

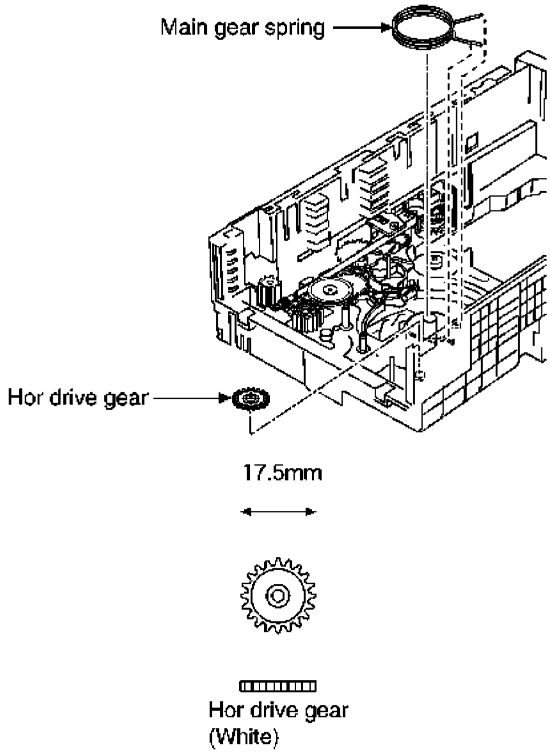
(Step 26)
Lastly, turn GENEVA gear clockwise slightly and drop change gear to mechanism base.



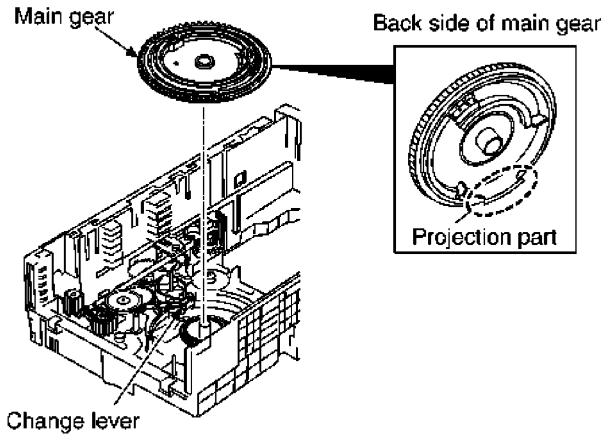
(Step 27)
Move the select rack smoothly forward manually until 2 extreme points of both select track and mechanism base.



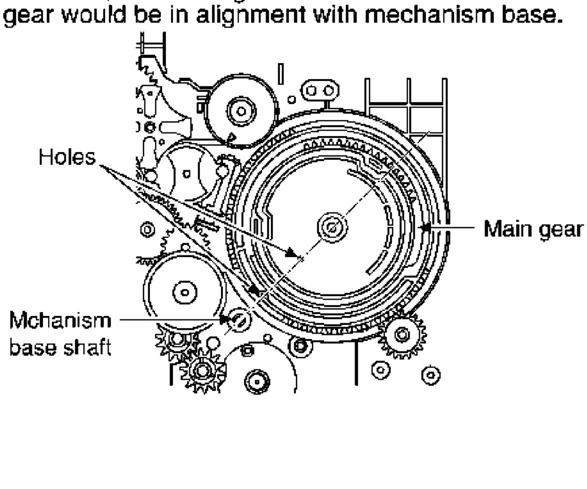
(Step 28)
Install the main gear spring and hor drive gear.



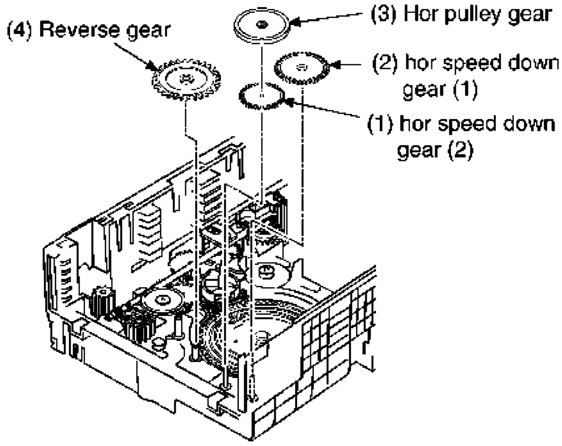
(Step 29)
Don't bring change lever into touch to projection part of main gear, when fixing main gear in mechanism base.

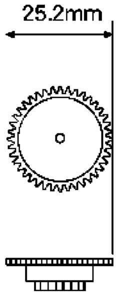


(Step 30)
After that, turn main gear so that 2 holes inside main gear would be in alignment with mechanism base.

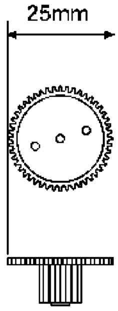


(Step 31)
Install the hor speed down gear (2), hor speed down gear (1), hor pullry gear and reverse gear.

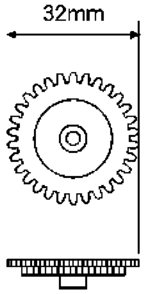




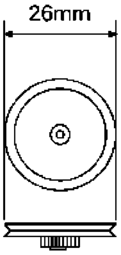
Hor speed down gear (2) (White)



Hor speed down gear (1) (Semi-transparent)



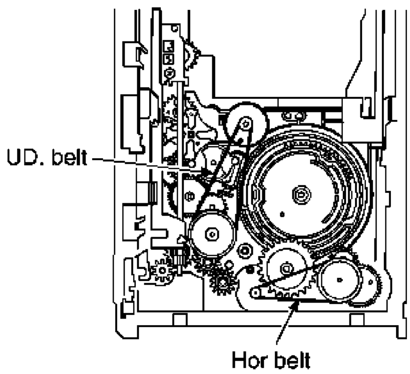
Reverse gear (White)



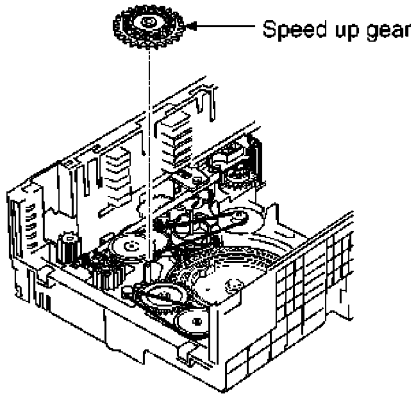
Hor pulley gear (White)

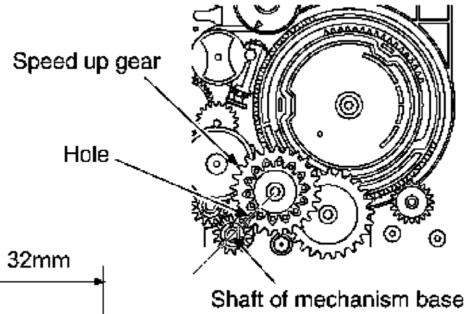
(Step 32)
Install the UD. belt and hor belt.

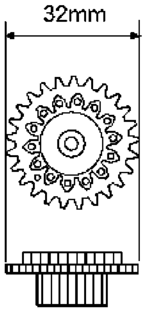
NOTE:
1. Take care not apply the grease to the belt.
2. Install the belt without twist.



(Step 33)
Install speed up gear to its shaft of mechanism base with 2 fitting.



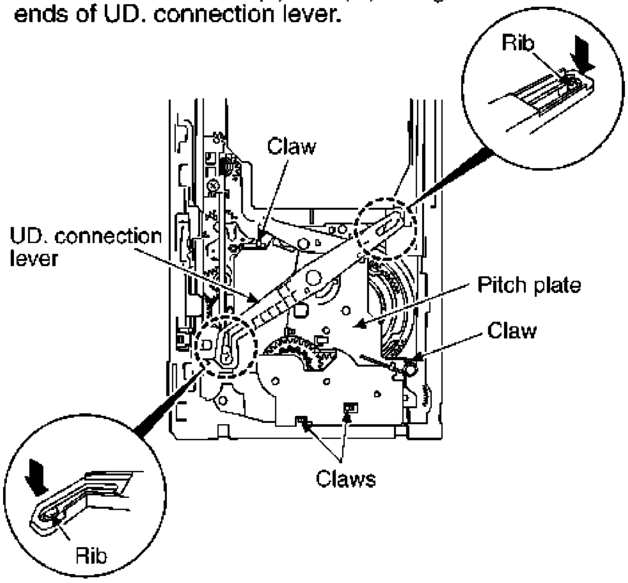




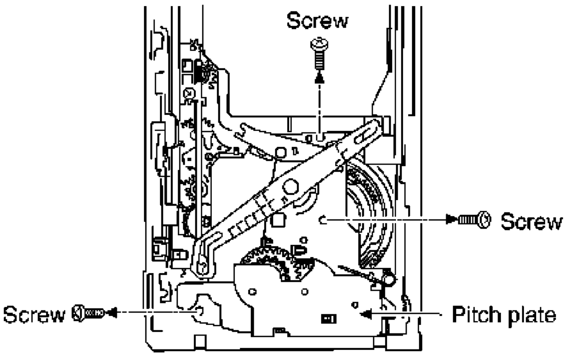
Speed up gear (White)

(Step 34)
Install the pitch plate. (The 4 claws should be latched.)

(Step 35)
Fix 2 ribs of UD. rack (L) and (R) into groove of both ends of UD. connection lever.

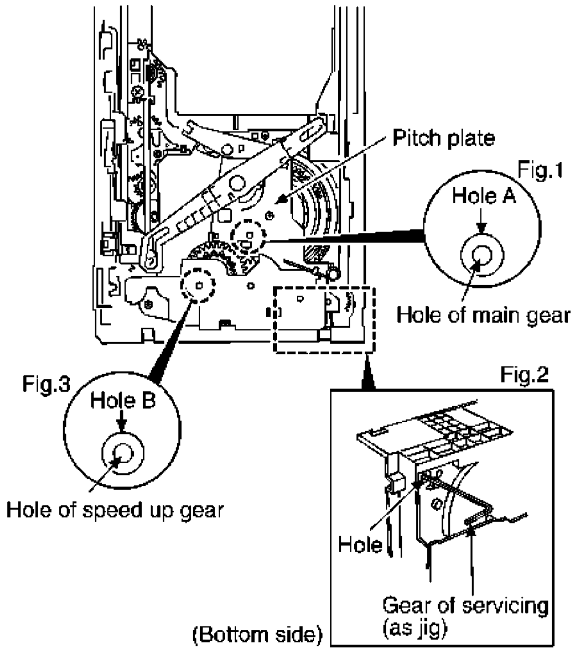


(Step 36)
Fixed it by three screws further.



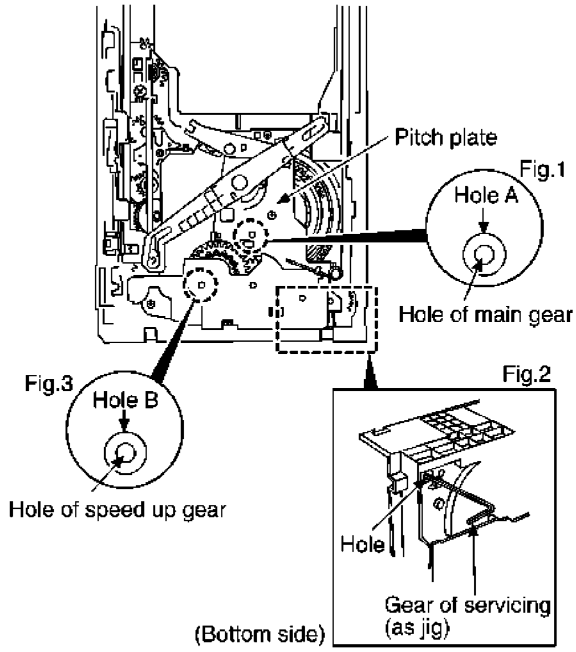
(Step 37)
Be sure the notice of below before fixing the traverse mechanism.

1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
   If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holed of both pitch plate and speed up gear is futted. (Refer Fig.3)
   If it's not fitted turn the speed up gear to adjust it.

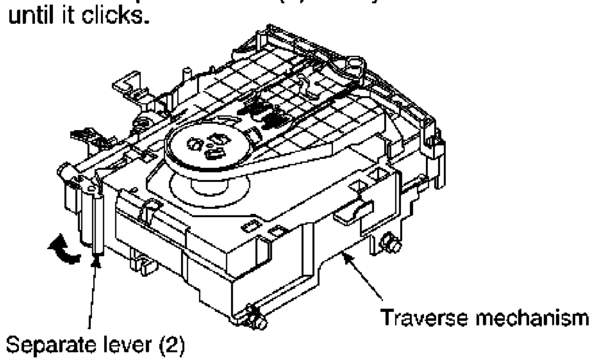


(Step 37)
Be sure the notice of below before fixing the traverse mechanism.

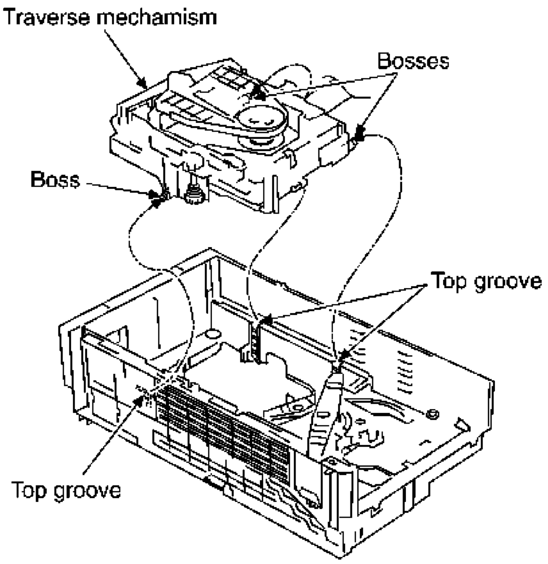
1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
   If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holed of both pitch plate and speed up gear is futted. (Refer Fig.3)
   If it's not fitted turn the speed up gear to adjust it.



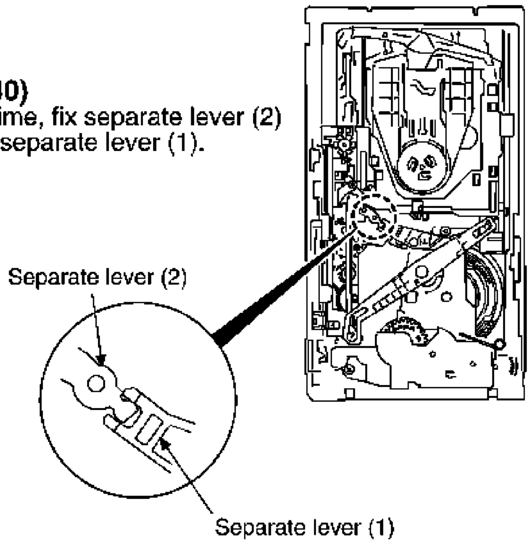
(Step 38)
Turn the separate lever (2) slowly toward left side until it clicks.



(Step 39)
Fix the left boss into the top groove of the UD. rack (L) and fix 2 bosses into the groove of the UD. rack (R).

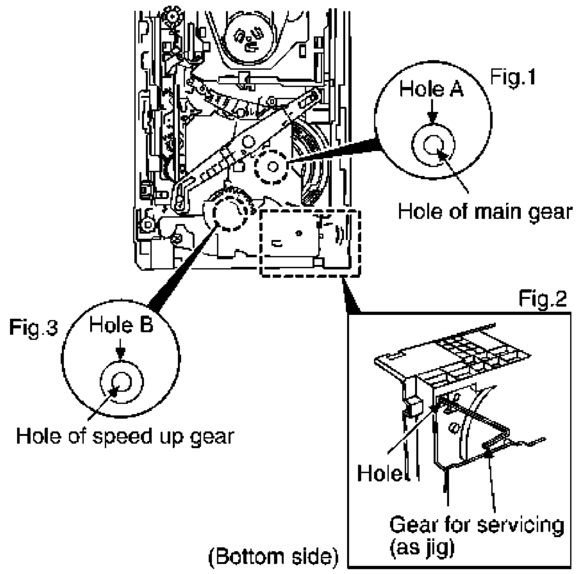


(Step 40)
At that time, fix separate lever (2) into the separate lever (1).



(Step 41)
After the traverse mechanism fixed,
confirm the phase in order below.

1. Check that 2 holes of both pitch plate and main gear is fitted. (Refer to Fig.1)
   If it's not fitted, put the gear for servicing in the hole of the bottom side and adjust it. (Refer to Fig.2)
2. Check that 2 holed of both pitch plate and speed up gear is futted. (Refer Fig.3)
   If it's not fitted turn the speed up gear to adjust it.



3. In the cog of road gear, the groove with it's cutting halfway set side ward. (Refer to Fig.4)
   Remove the traverse mechanism again when it is not set side ward and install it after adjustment of inserting position.
   NOTE: By this time, do not adjust to rotate the road gear.

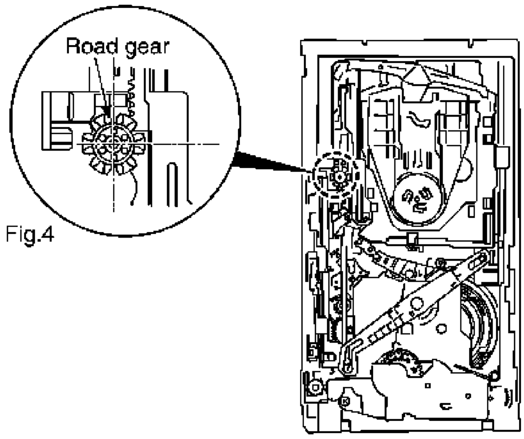
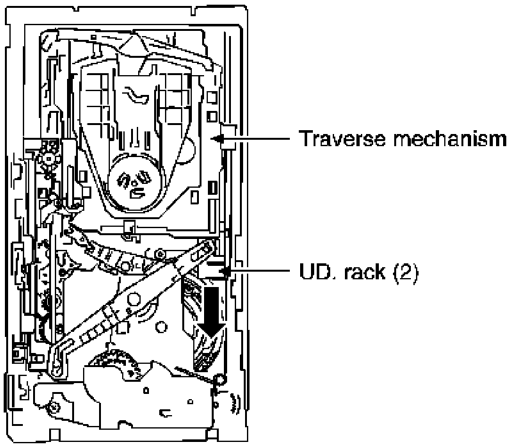


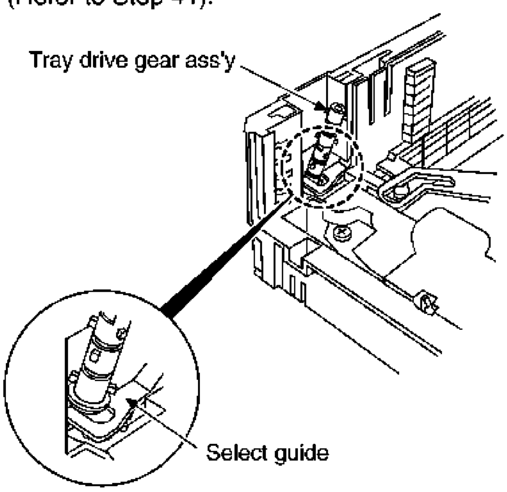
Fig.4

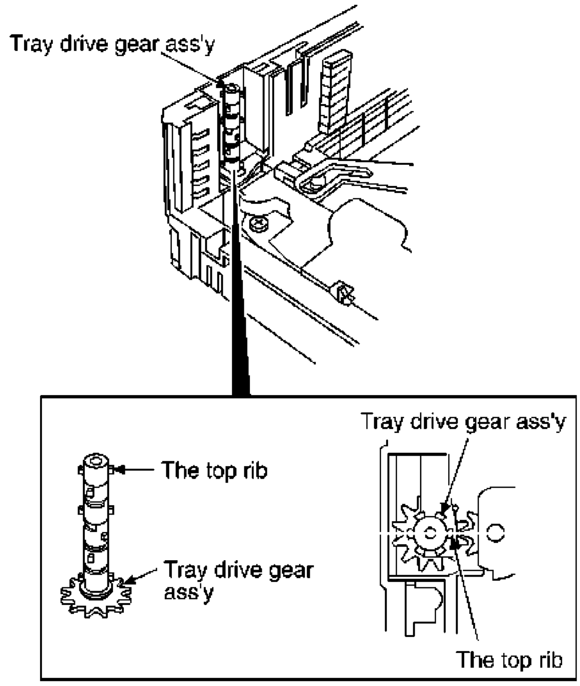
(Step 42)
After insertion of traverse mechanism, pull the UD. rack (R) on this side that each phase is "OK" and then lock the traverse mechanism.



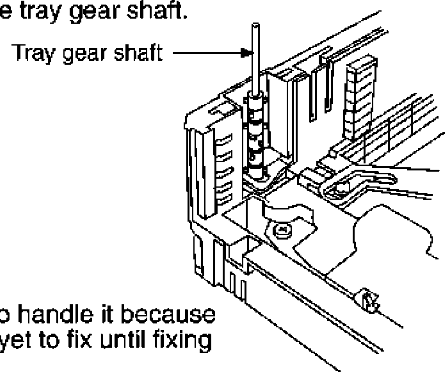
(Step 43)
Install the tray drive gear to select guide.
(Install the top rib of the tray drive gear with side ward.)

NOTE:
Confirm the each phase surely before install the tray drive gear. (Refer to Step 41).



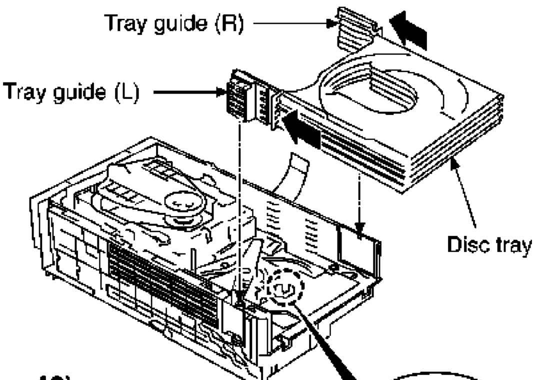


(Step 44)
Insert the tray gear shaft.

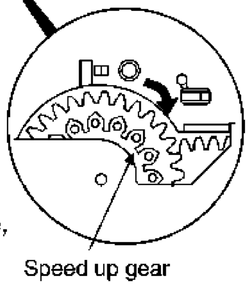


NOTE:
Be careful to handle it because the shaft is yet to fix until fixing top cover.

(Step 45)
Move the tray guide (R) and (L) to direction of arrow that fixed (stopped) it and install 5 pieces of disc tray.

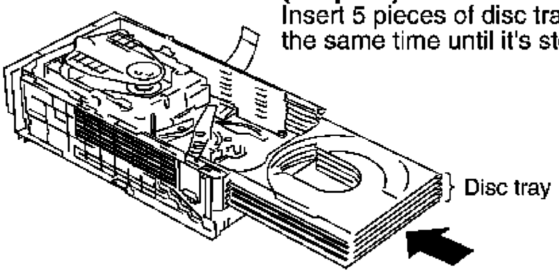


(Step 46)
Confirm that when the disc tray insert the upper side, the speed up gear is rotate clockwise a little.
- When the rotation of speed up gear is not clockwise or rotate, repeat from Step 45.
- Until the speed up gear rorate, repeat from Step 45 and 46.



NOTE:
While keeping all postion, install 5 pieces of disc tray.

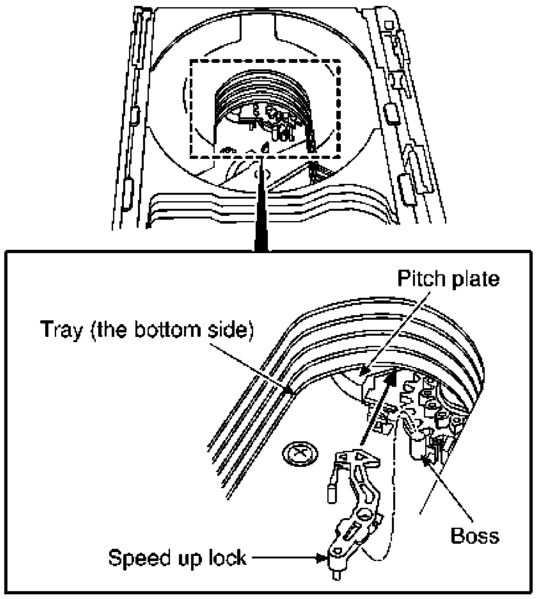
(Step 47)
Insert 5 pieces of disc tray at the same time until it's stop.



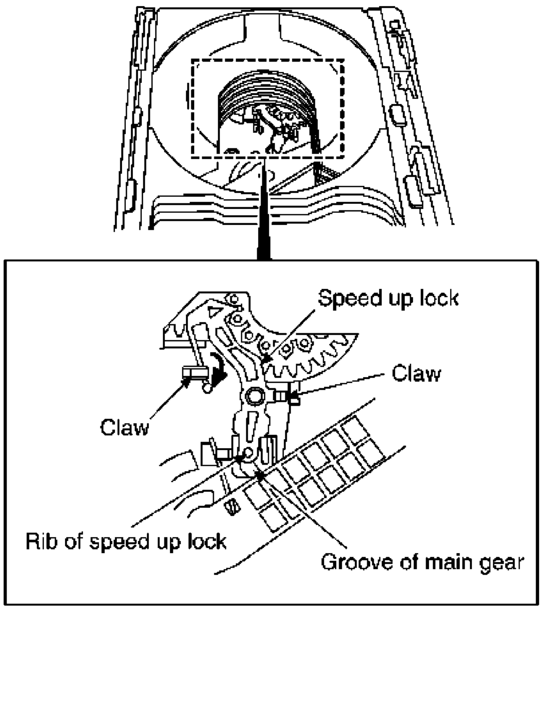
(Step 48)
Turn the traverse side 180°.

(Step 49)
While install the tip of speed up lock beween tray (No.1) of the most lower side and pitch plate for the time being.
(Do not to insert the cog of speed up gear), insert it to boss.

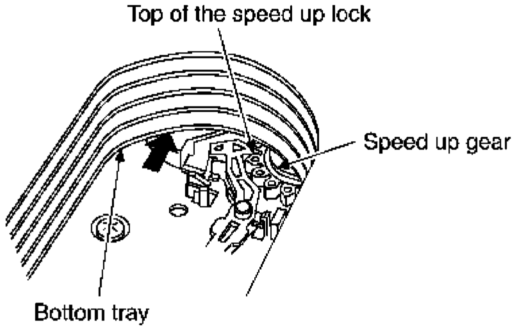
NOTE:
At that time, do not move the tray.
(See the tray the most front side)



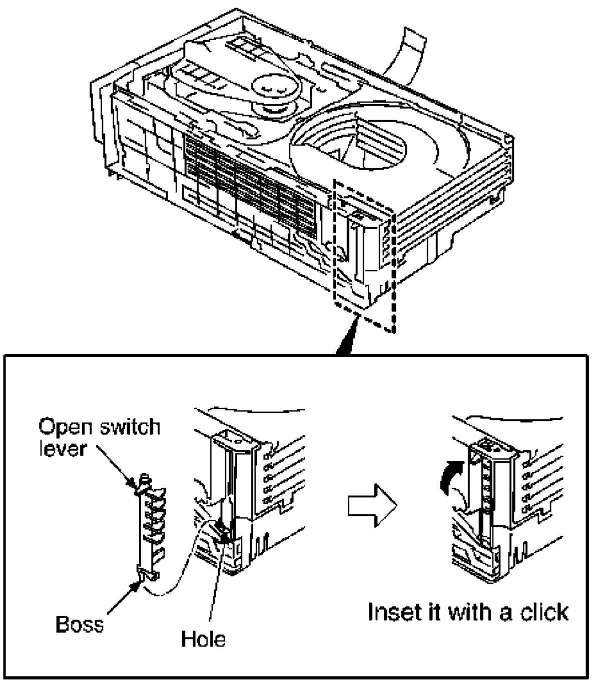
(Step 50)
Insert the rib of speed up lock into a groove of main gear, and lock it with 2 claws.



(Step 51)
Move the bottom tray to the arrow while pushing the top of the speed up gear. And insert it to a cog of the speed up gear.

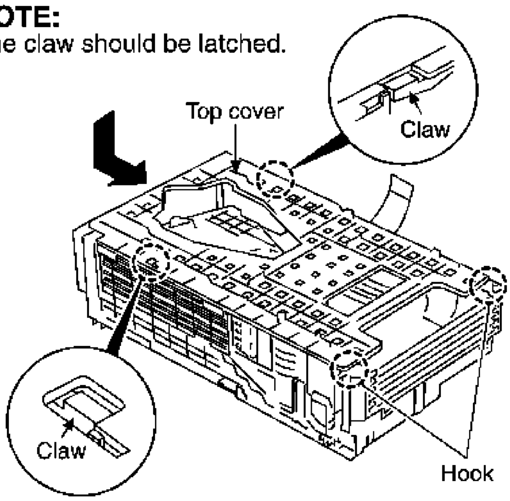


(Step 52)
Install the open switch lever.
(Put the boss into the hole of the mechanism base.)



(Step 53)
Install the top cover.
Fix it into hooks and slide direction to the arrow.

NOTE:
The claw should be latched.

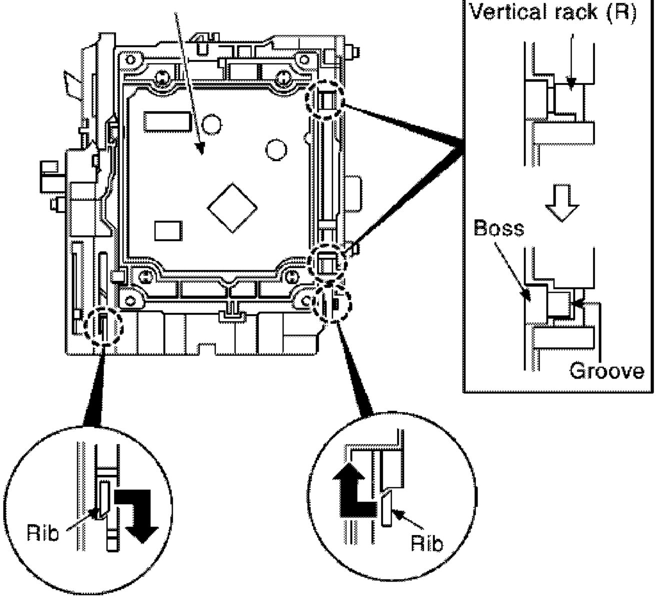


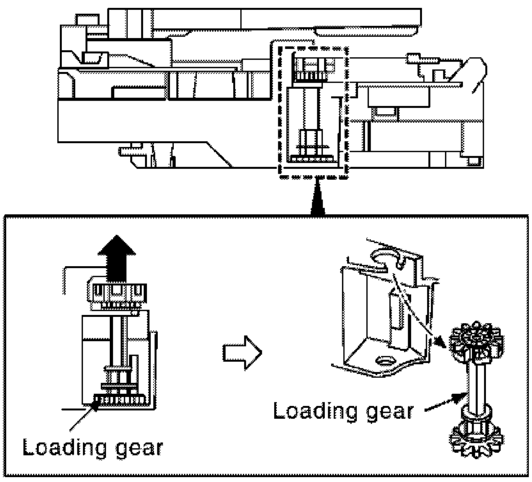
8.12. Disassembly for traverse mechanism

- Follow the (Step 1) - (Step 14) of Item 8.1.
- Follow (Step 1) - (Step 7) described in Item 8.10.
- Follow (Step 1) - (Step 7) described in Item 8.11.
- Follow Step 1 described in Item 8.11.

Step 1
Shift ribs of both side to the arrow direction.
(A vertical rack (R) slides and groove opens)

Step 2
Remove CD traverse deck.

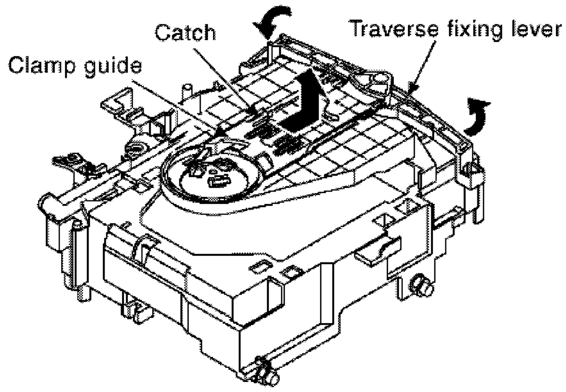




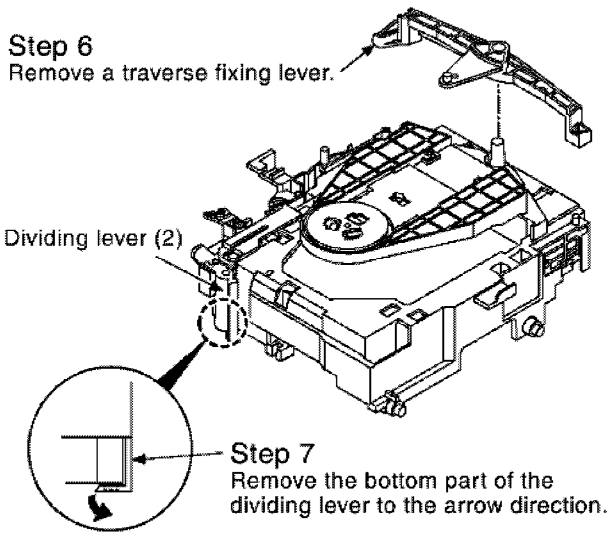
Step 3
Lift a loading gear slightly and pull out.

Step 4
Fixing lever to the arrow direction, rotate a traverse.

Step 5
Remove catch and take out a clamp guide.

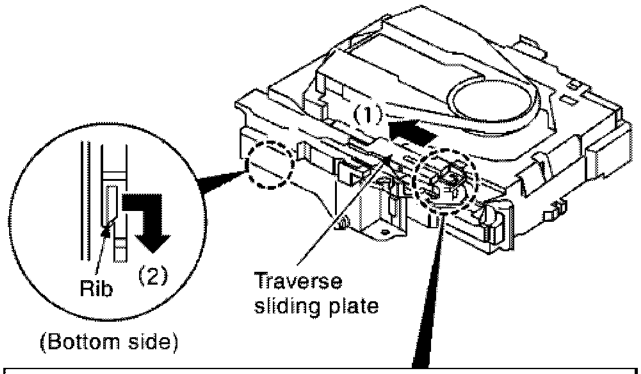


Step 6
Remove a traverse fixing lever.

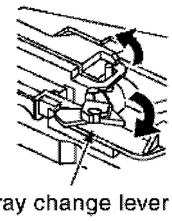


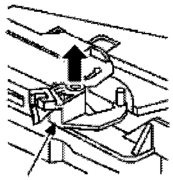
Step 7
Remove the bottom part of the dividing lever to the arrow direction.

Step 8
Slide a traverse sliding plate to the arrow direction (1), and shift a rib to the arrow direction (2).



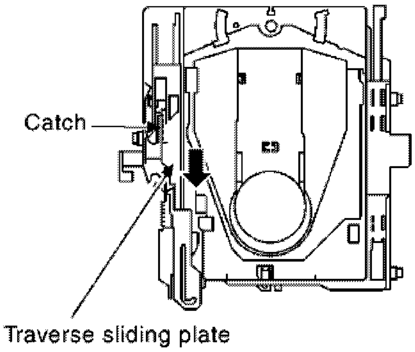
Step 9
Shifting a traverse sliding plate slightly and rotate a tray change lever.





Step 10
Remove a tray change lever.

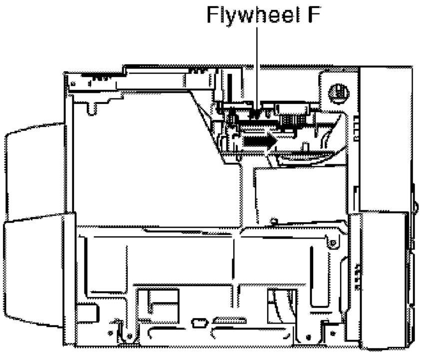
Step 11
Holding the catch down, slide a traverse sliding plate to the arrow direction and remove it.



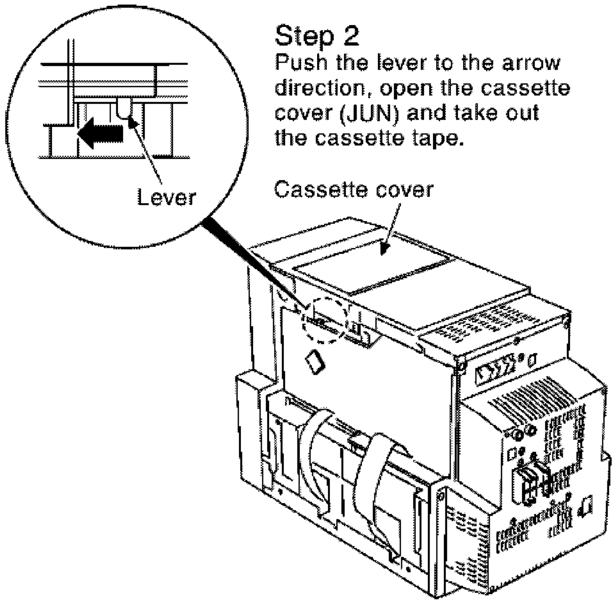
8.13. Handling of cassette tape jam

- Follow the (Step 1) - (Step 4) of Item 8.1.
-

Step 1
If the cassette tape is not ejected due to twining around capstan or pinch roller during playing or recording, rotate a flywheel F to the arrow direction to remove twined tape.



Step 2
Push the lever to the arrow direction, open the cassette cover (JUN) and take out the cassette tape.



9 Self-Diagnostic Display Function

This unit is equipped with a self-diagnostic display function, which will be useful during servicing and maintenance.

- Refer to the next page for display symbols, symptoms, etc.

9.1. Preparations

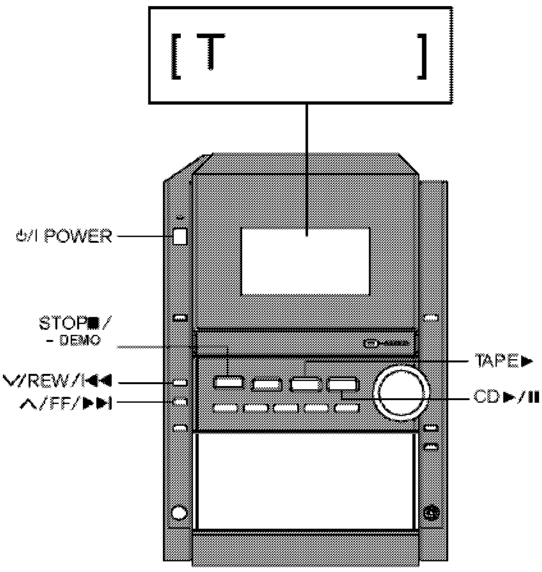
1. A Cr02-positioned blank cassette tape with an erase prevention niche on either Side A or B.
2. A normal-positioned music tape with erase prevention niches on both Sides A and B. Both tapes are halfway forwarded in advance.
3. The remote controller that comes with this unit.

9.2. Setting of the Self-Diagnostic Mode

No.	Operation Procedure	Operation and Processing of Microcomputer
1	Switch the SELECTOR to TAPE. There should be NO cassettes loaded.	
2	Press the [■ /-DEMO] key for 2 sec and press [∧ /FF/▶▶I] for another 2 sec, it shall enter into the self-diagnostic mode.	[T] shall be displayed in the FL.

9.3. Restoring Normal Display

- From the F76 display, the normal display does not appear till an error is recovered.
- For displays other than F76, press “POWE R” button to turn off the power, and then turn on the power.



9.4. Clearing Self-Diagnostic Memory

<CD Section> (F15, F17, F22, F26, F27, F28, F29)

1. Enter a self-diagnostic mode.
2. Press " ■ /-DEMO" button. A symbol of self-diagnostic is indicated on the display if an error is found. If several errors are found, a respective indication is displayed when " ■ /-DEMO" button is pressing repeatedly. (e.g. H01 → CD F15 → F01)
   If no error is found, only "TEST" indication is displayed and remains unchanged even if " ■ /-DEMO" button is pressed.

9.5. Displaying Self-Diagnostic Results

<Cassette Deck Section> (H01, H02, H03, F01, F02)

1. Enter the self-diagnostic mode, following the instructions described in [5.2. Entering Self-Diagnostic Mode].
2. Insert a normal-positioned music tape with erase prevention niches on both Sides A and B. Press [TAPE ▶] button to activate the TPS operation so that the tape automatically stops at an interval between music selections.
3. Press [■ /CLEAR] and [TAPE ▶] buttons together on the remote controller. (Recording does not start.)
4. Then, insert a Cr02-positioned blank cassette tape with an erase prevention niche of Side A or B set to the left side.

5. Press [∧ /FF/ ⏭] button. The tape will be forwarded and automatically stop after two seconds.
6. Remove the cassette tape, and set the other side.
7. Press [∨ /REW/ ⏮] button. The tape will be rewound and automatically stops after two seconds.
8. Press [■ /-DEMO] button on the unit.
   If an error is found, a self-diagnostic key appears on the display.
   If several errors are found, the display shows these keys when [■ /-DEMO] button is pressed repeatedly. (Ex.: H01 - H02 - F01 - H01)
   If no error is found, only the message, "CD TEST" appears on the display.

(*1) TPS operation (music search) detects the blank sections between music selections. Therefore, do not use tapes with the following conditions:

- A blank section that lasts only 4 seconds or less.
- No blank sections (recording through microphones, etc.).
- Music selections that have extremely low pitches or prolonged silent sections (such as classical music).
- and/or Music recorded with fade in/out effect.

Displayed Key	Symptoms	Causes and Troubleshooting
H01	Cassette mchanism operates erratically. Ex.: REV operation starts even when "FWD" button is pressed.	Malfunction of cassette mechanism mode switch (S971), plunger, and capstan motor. (Check and replace the parts.)
H02	Recording fails or starts when an erase prevention tab on cassette tape is broken off.	Malfunction or short-circuit of erase prevention detect switch (S975). (Check and replace the parts.)
H03	No playback when "TAPE ▶" button is pressed. The motor operates when no cassette tape is inserted and "TAPE ▶" button is pressed.	Malfunction or short-circuit of cassette mechanism tape detect switch (S972). (Check and replace the parts.)
F01	Tape playbacks and stops soon after "TAPE ▶" button is pressed.	Reel pulse problem. Malfunction of photo interrupter (IC971). (Check and replace the parts.)
F02	TPS does not operate.	Malfunction of playback EQ/recording amplifier IC (IC1302). (Check and replace the parts.)
F15	CD REST SW abnormal.	CD traverse position initial setting operation failsafe counter (1000 ms) waiting for REST SW to turn on. Error No. shall be cleared by force or duing coldstart.
F17	DOWN SW abnormal.	During vertical operation going to the bottom position, if failsafe timer is finished and switch no change or switch target condition was not achieve, this error shall be memorized. The next time mechanism operates, it shall do mechanism initialization. Error No. shall be cleared by force or coldstart.
F22	Loading Mode / Mecha abnormal.	During mehca initialization, Loading mode mechanism abnormal, normal operation cannot be achieved. The next time mechanism operates, it shall do mechanism initialization. Error No. shall be cleared by force or coldstart.
F26	CD servo LSI command signal abnormal.	CD function DTMS command, after system setting, if SENSE = 'L' cannot be detected. Memory shall contain F26 code. After Power on, CD function shall continue, error shall occur "NO DISC". Error No. shall be cleared by force or coldstart.
F27	Slide operation abnormal.	During vertical operation, if failsafe timer is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.
F28	DISC load abnormal.	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.
F29	DISC unload abnorml.	While going to play position, if failsafe counter is finished and switch no change or switch target condition was not achieve, this error shall be memorized. Next time mechanism operates, it shall do coldstart. Error No. shall be cleared by force or coldstart.

10 Precaution of Laser Diode

Caution :

This product utilizes a laser diode with the unit turned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100 µW/VDE
Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG :

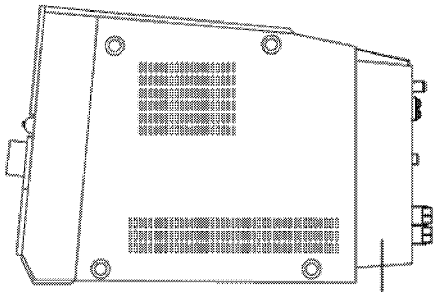
Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit :100 µW/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

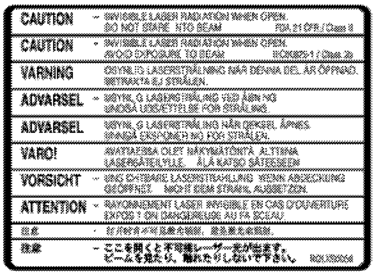
■ **Use of Caution Labels**



Side of product

CLASS 1 LASER PRODUCT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



Inside of product
Tuotteen sisällä
Produktets innside

11 Procedure for Checking Operation of Individual Parts of Cassette Mechanism Unit

11.1. Operation Check with Cassette Tape

1. Pull up the EJECT lever using a rubber band. (Cf. Fig. 6)
2. Supply DC5V to MOTOR. (→ MOTOR rotates.) (Cf. Fig. 5)
3. Insert a cassette tape to the unit.
4. Supply DC9V to the plunger, and turn the power ON and OFF. (→ Power +PL, -PL) (Cf. Fig. 5)
   a. FWD PLAY: Supply the plunger power in a flash. (ON: approx. 5msec)
   b. FWD FF: Supply the plunger power in a flash at PLAY mode. (ON: approx. 5msec)
   c. STOP: Supply the plunger power in a flash at FWD FF mode. (ON: approx. 5msec)
   d. REV PLAY: Supply the plunger power in a normal timing at STOP mode. (ON: approx. 200msec)
   e. REV REW: Supply the plunger power in a flash at REV PLAY mode. (ON: approx. 50msec)
   f. STOP: Supply the plunger power in a flash at FF mode. (ON: approx. 50msec)
   Repeat the operation (→ FWD PLAY)
   (Note) Other operation may start if a timing of supplying the plunger power is missed.

11.1.1. Connection Status between Mechanism and Power Supply (Motor, Plunger)

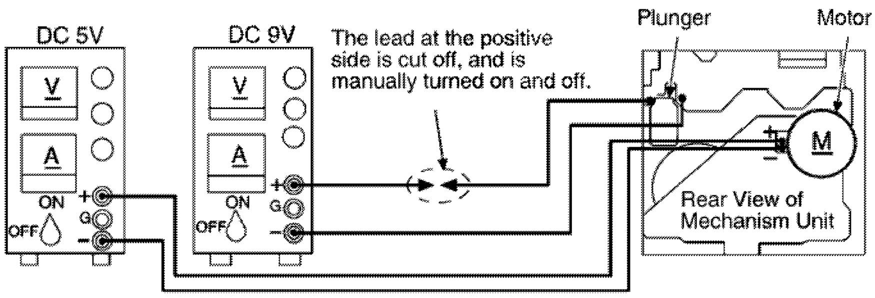


Fig. 5

11.1.2. Operative Parts of Mechanism Unit (EJECT lever fitted with rubber band, Plunger/Rib operation)

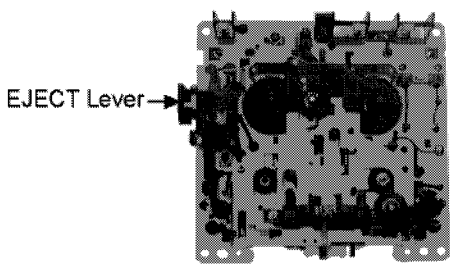


Fig. 6

11.2. Operation Check without Cassette Tape

1. Pull up the EJECT lever using a rubber band. (Cf. Fig. 6)
2. Supply DC5V to MOTOR. (→ MOTOR rotates.)
3. Lift up the mechanism unit's plunger/rib with the tip of a negative screwdriver, and operate the unit in the same timing as supplying the power. (Cf. Fig. 7)

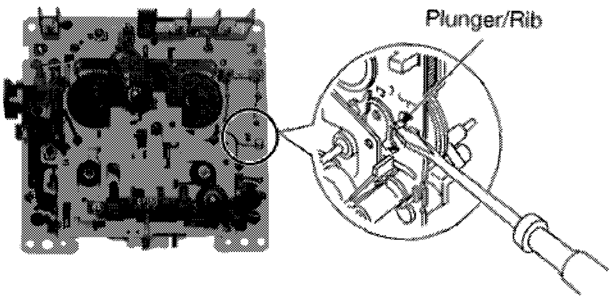


Fig. 7

12 Measurement And Adjustments

12.1. Tuner Section

12.1.1. AM-IF Alignment

- **AM-IF ALIGNMENT**

SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT(Shown in Fig.3)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	450 kHz	Point of non-interference (on/about 600 kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z102 (AM IFT)	Adjust for maximum output.

- **AM-RF ALIGNMENT**

SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER OSCILLOSCOPE)	ADJUSTMENT(Shown in Fig.1)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	522 kHz	Tuning capacitor fully closed.	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM OSC Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	603 kHz	Tuning capacitor fully open.	Headphone Jack (32Ω) Fabricate the plug as shown in Fig. 2 and then connect the lead wires of the plug to the measuring instrument.	Z101 (AM ANT Coil)	Adjust for maximum output.

12.2. Cassette Deck Section

12.2.1. Requirements

- Test tape (QZZCFM) (QZZCWAT)
- Normal blank cassette tape (QZZCRA)
- Digital frequency counter
- Oscilloscope
- Electrical voltmeter
- Headphone jack output jig (Cf. Fig. 8)

12.2.2. Setting of Unit

- VOLUME: MAX

12.2.3. Preparations

1. Apply [8.1 Checking Main and Transformer P.C.B, Deck P.C.B and Deck Mechanism P.C.B.] under [8. Disassembly and Main Component Replacement Procedures].

2. Remove 4 screws from the mechanism unit to disassemble. (Refer to [8.2. Procedure for Replacing Cassette Holder (Step 1)] under [8. Disassembly and Main Component Replacement Procedures].
3. Connect the headphone jack output jig (Cf. Fig. 8) to headphone jack.

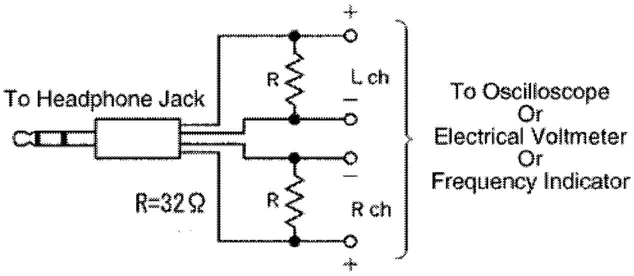


Fig. 8

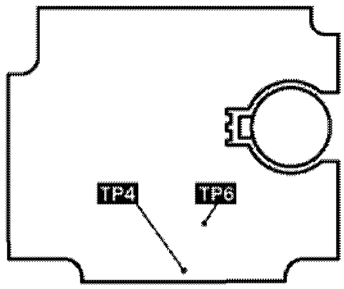


Fig. 9

12.2.4. Tape Speed Adjustment

- Normal speed adjustment (only during forward playback)
  (Product reference value: 3,000±90Hz)

1. Connect a frequency indicator. (Cf. Fig. 12)
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust the motor screw so that the following output level is produced. (Cf. Fig. 10)
   Adjustment Range: 3,000 ± 90Hz (a constant speed)

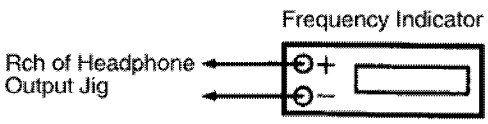


Fig. 10



Fig. 11

12.2.5. Bias Voltage Check

1. Connect an electrical voltmeter. (Cf. Fig. 9) (Cf. Fig. 12)
2. Set the function to "TAPE" position.
3. Insert a normal blank cassette tape (QZZCRA).
4. While pressing and holding down [REC (●/ ❚❚)] button, press [TAPE (▶)] button to pause the recording mode. (Repeat pressing the buttons till the recording pause mode is activated.)
5. Check that the output level is within the standard range.

Standard Range: 14 ± 4mV

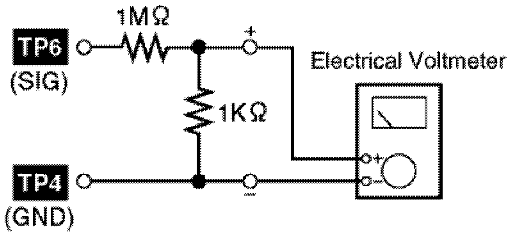


Fig. 12

12.2.6. Bias Frequency Check

1. Connect a digital frequency counter (Figure 13).
2. Set the function to "TAPE" position.
3. Insert a normal blank cassette tape (QZZCRA) and press "REC" mode on main unit.
4. Check that the output frequency is within the standard range.

Standard Value: 98 ±8 kHz

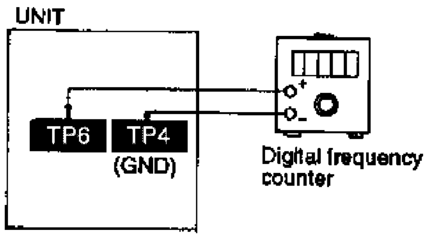
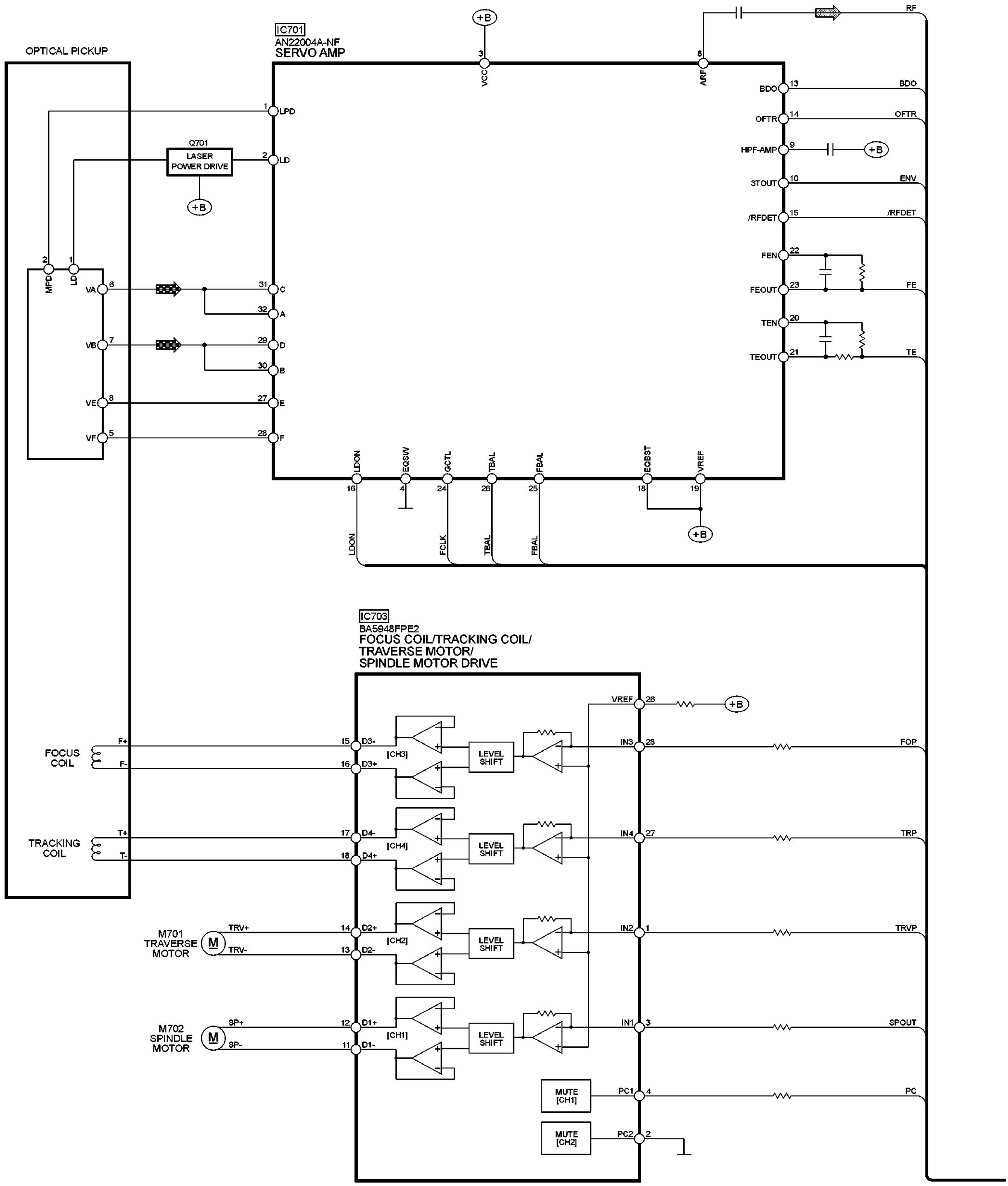
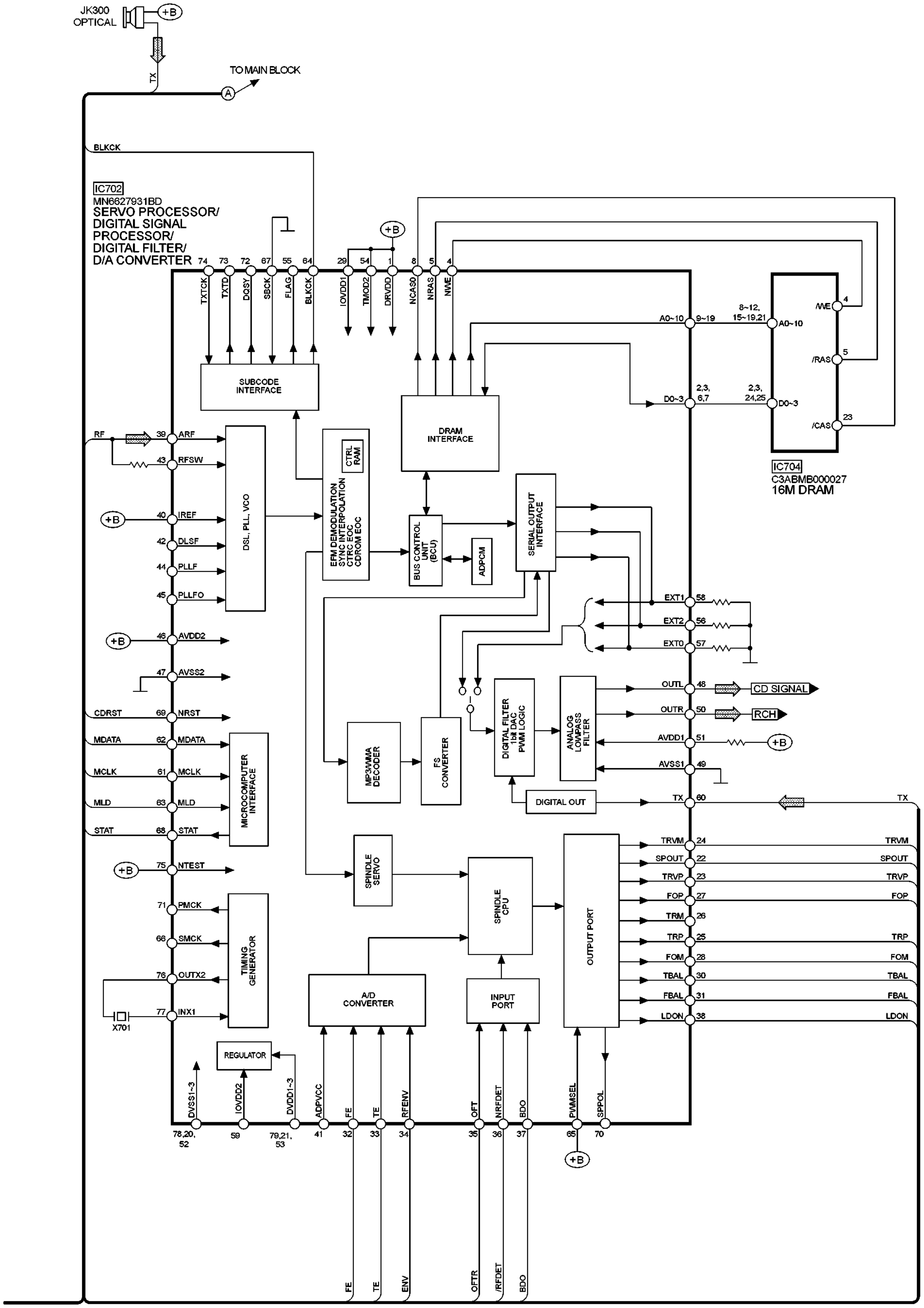
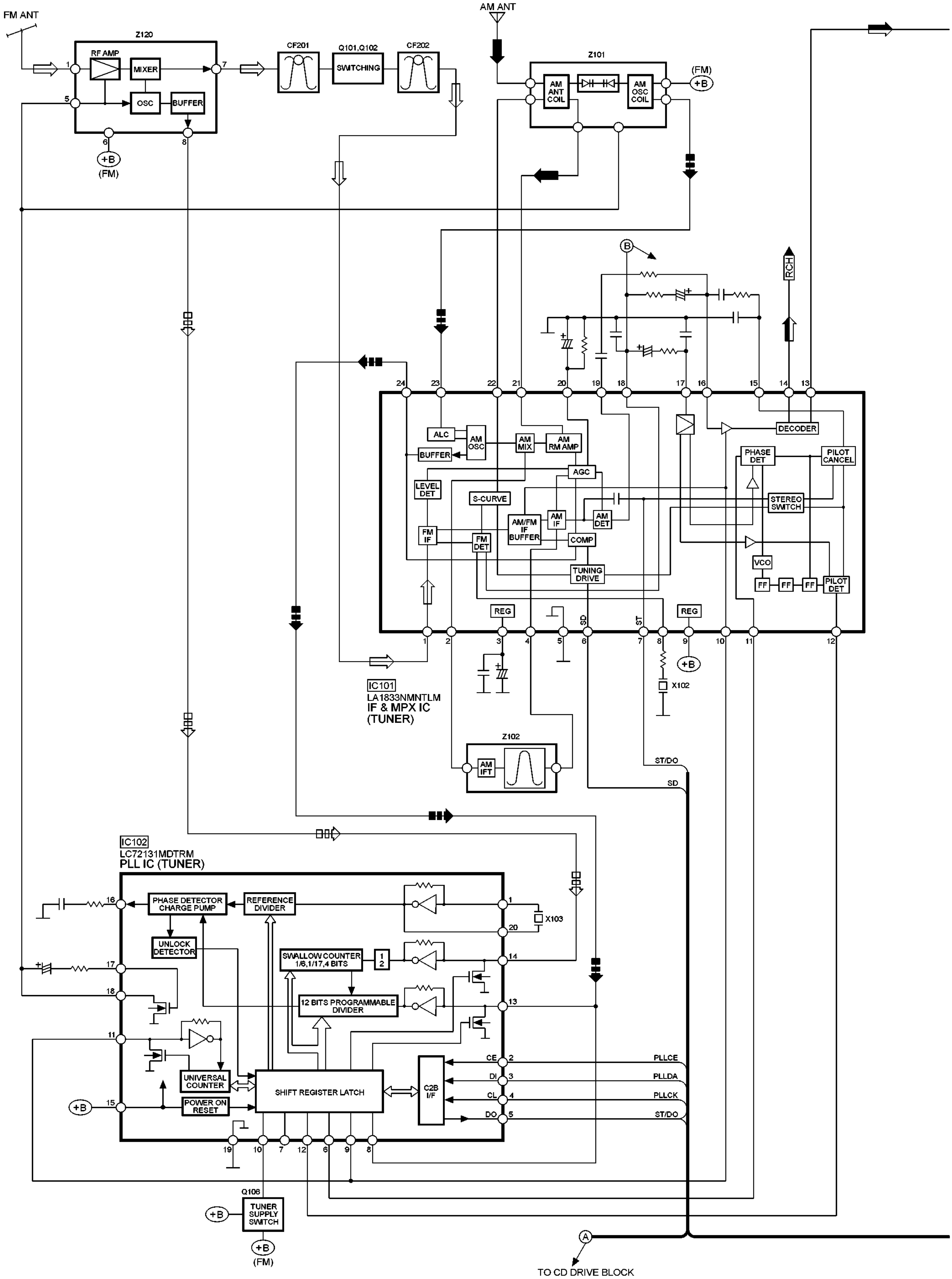


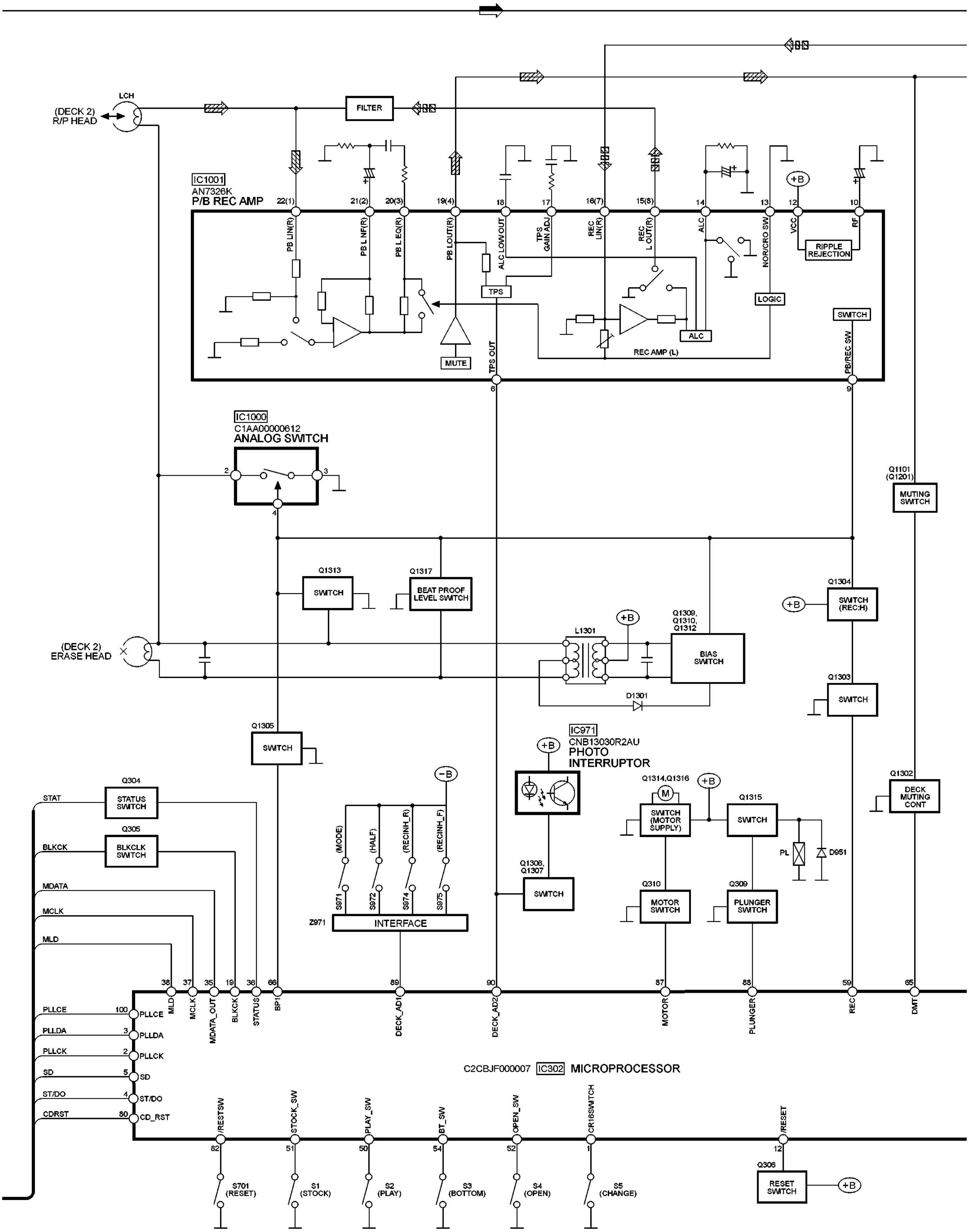
Fig. 13

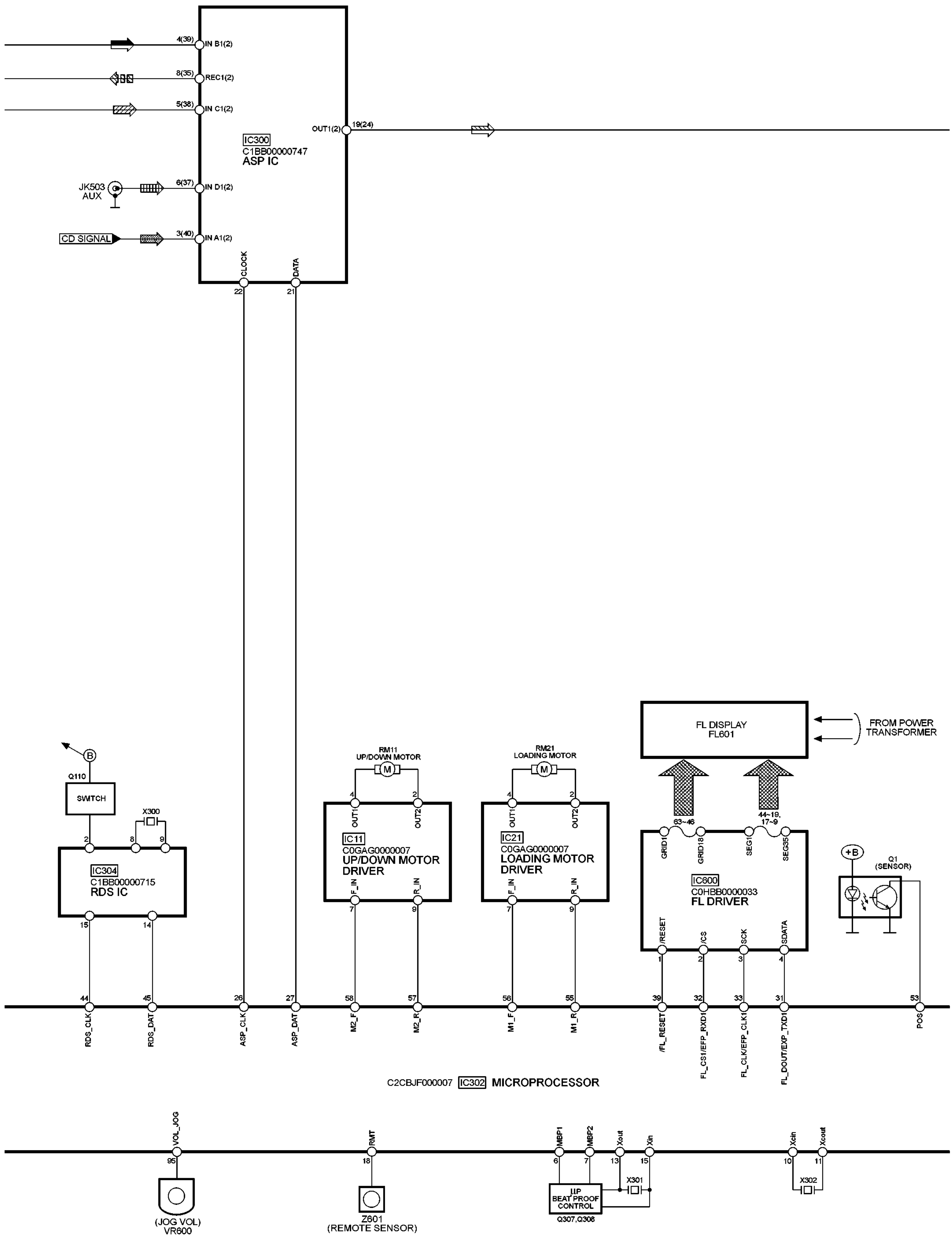
13 Block Diagram

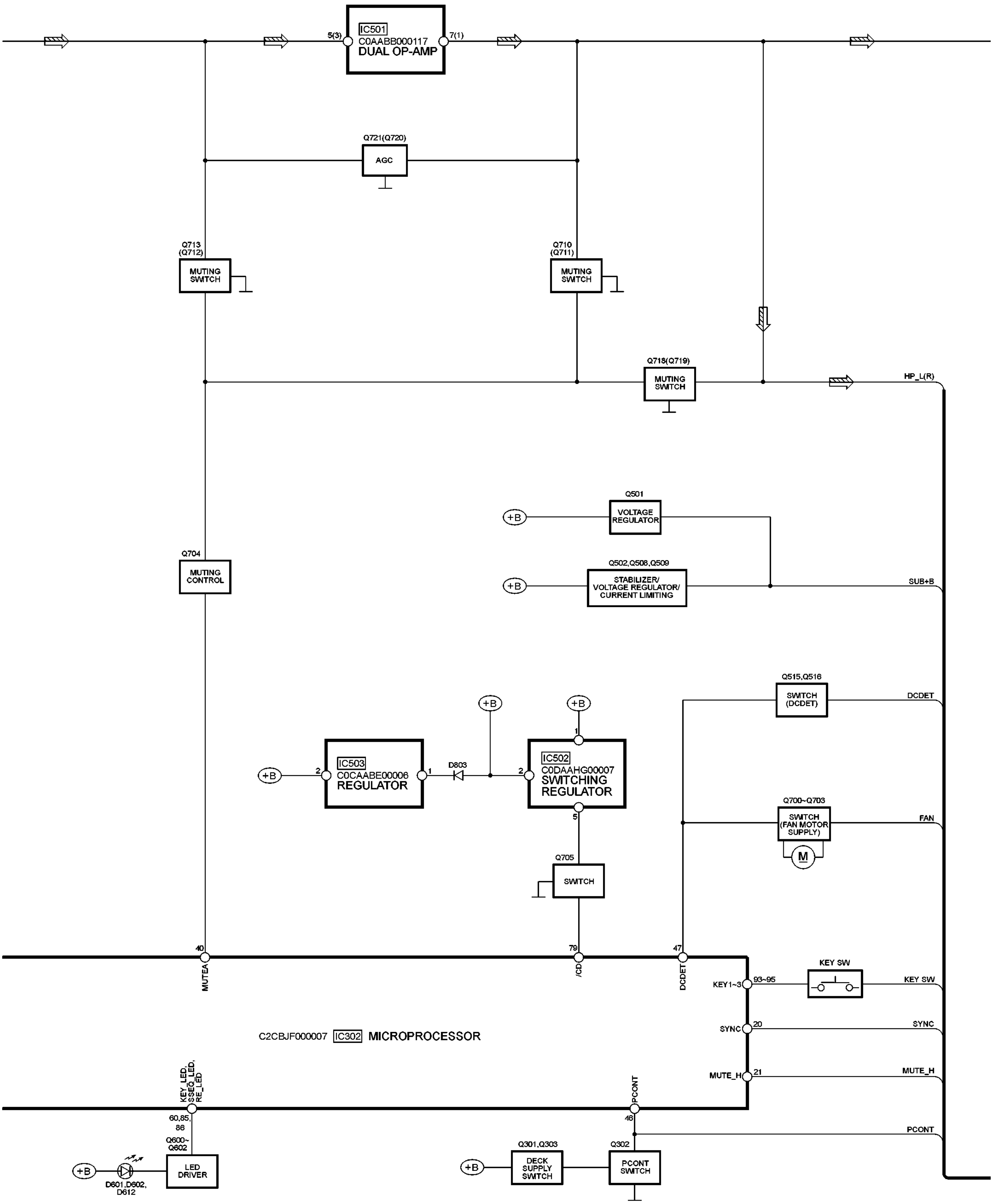



JK300
OPTICAL
+B
TX
TO MAIN BLOCK
A
BLKCK
IC702
MN6627931BD
SERVO PROCESSOR/
DIGITAL SIGNAL
PROCESSOR/
DIGITAL FILTER/
D/A CONVERTER
74 TXTCK
73 TXTD
72 DQSY
67 SBCK
55 FLAG
64 BLKCK
29 IOVDD1
54 TMOD2
1 DRVDD
8 NCAS0
5 NRAS
4 NWE
SUBCODE INTERFACE
DRAM INTERFACE
A0~10 9~19
D0~3 2,3, 6,7
8~12, 15~19,21 A0~10
2,3, 24,25 D0~3
/WE 4
/RAS 5
/CAS 23
IC704
C3ABMB000027
16M DRAM
RF 39 ARF
43 RFSW
40 IREF
42 DLSF
44 PLLF
45 PLLFO
DSL, PLL, VCO
CTRL RAM
EFM DEMODULATION
SYNC INTERPOLATION
CTRC EOC
CDROM EOC
BUS CONTROL UNIT (BCU)
ADPCM
SERIAL OUTPUT INTERFACE
EXT1 58
EXT2 56
EXT0 57
46 AVDD2
47 AVSS2
CDRST 69 NRST
MDATA 62 MDATA
MCLK 61 MCLK
MLD 63 MLD
STAT 68 STAT
MICROCOMPUTER INTERFACE
MP3/WMA DECODER
FS CONVERTER
DIGITAL FILTER
1bit DAC
PWM LOGIC
ANALOG LOWPASS FILTER
OUTL 48
CD SIGNAL
OUTR 50
RCH
AVDD1 51
AVSS1 49
DIGITAL OUT
TX 60
TX
75 NTEST
71 PMCK
66 SMCK
76 OUTX2
77 INX1
X701
TIMING GENERATOR
SPINDLE SERVO
SPINDLE CPU
OUTPUT PORT
TRVM 24 TRVM
SPOUT 22 SPOUT
TRVP 23 TRVP
FOP 27 FOP
TRM 26
TRP 25 TRP
FOM 28 FOM
TBAL 30 TBAL
FBAL 31 FBAL
LDON 38 LDON
A/D CONVERTER
INPUT PORT
REGULATOR
DVSS1~3 78,20, 52
IOVDD2 59
DVDD1~3 79,21, 53
ADPVCC 41
FE 32
TE 33
RFENV 34
OFT 35
NRFDET 36
BDO 37
PWMSEL 65
SPPOL 70
FE
TE
ENV
OFTR
/RFDET
BDO

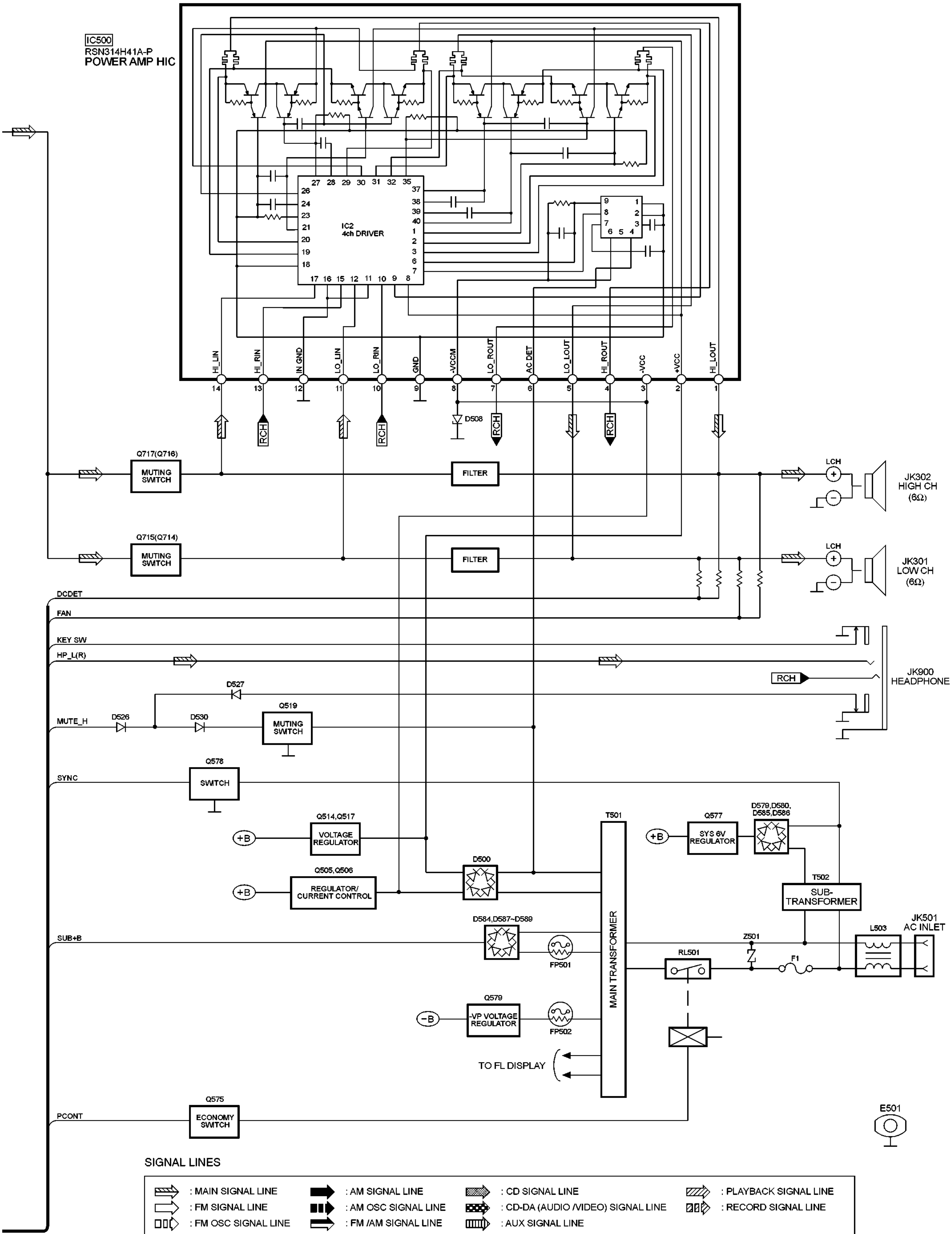

FM ANT
Z120
RF AMP
MIXER
OSC
BUFFER
+B
(FM)
CF201
Q101,Q102
SWITCHING
CF202
AM ANT
Z101
AM ANT COIL
AM OSC COIL
(FM)
+B
B
RCH
ALC
AM OSC
BUFFER
AM MIX
AM RM AMP
AGC
LEVEL DET
S-CURVE
AM/FM IF BUFFER
AM IF
AM DET
FM IF
FM DET
COMP
TUNING DRIVE
REG
SD
ST
REG
DECODER
PHASE DET
PILOT CANCEL
STEREO SWITCH
VCO
FF
FF
FF
PILOT DET
+B
X102
IC101
LA1833NMNTLM
IF & MPX IC
(TUNER)
Z102
AM IFT
ST/DO
SD
IC102
LC72131MDTRM
PLL IC (TUNER)
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
X103
UNLOCK DETECTOR
SWALLOW COUNTER 1/6,1/17,4 BITS
1/2
12 BITS PROGRAMMABLE DIVIDER
UNIVERSAL COUNTER
POWER ON RESET
SHIFT REGISTER LATCH
C2B I/F
CE
DI
CL
DO
PLLCE
PLLDA
PLLCK
ST/DO
+B
Q106
TUNER SUPPLY SWITCH
+B
(FM)
A
TO CD DRIVE BLOCK


(DECK 2) R/P HEAD
LCH
FILTER
IC1001
AN7326K
P/B REC AMP
PB LIN(R)
PB L NF(R)
PB L EQ(R)
PB LOUT(R)
ALC LOW OUT
TPS GAIN ADJ
REC LIN(R)
REC L OUT(R)
ALC
NOR/CRO SW
VCC
RF
RIPPLE REJECTION
TPS
LOGIC
SWITCH
MUTE
TPS OUT
ALC
REC AMP (L)
PB/REC SW
IC1000
C1AA00000612
ANALOG SWITCH
Q1101 (Q1201)
MUTING SWITCH
Q1313
SWITCH
Q1317
BEAT PROOF LEVEL SWITCH
Q1304
SWITCH (REC:H)
(DECK 2) ERASE HEAD
L1301
Q1309, Q1310, Q1312
BIAS SWITCH
D1301
Q1303
SWITCH
Q1305
SWITCH
IC971
CNB13030R2AU
PHOTO INTERRUPTOR
Q1314,Q1316
SWITCH (MOTOR SUPPLY)
Q1315
SWITCH
PL
D951
Q1302
DECK MUTING CONT
Q304
STATUS SWITCH
Q305
BLKCLK SWITCH
STAT
BLKCK
MDATA
MCLK
MLD
(MODE)
(HALF)
(RECINH_R)
(RECINH_F)
S971
S972
S974
S975
Z971
INTERFACE
Q1306, Q1307
SWITCH
Q310
MOTOR SWITCH
Q309
PLUNGER SWITCH
MLD
MCLK
MDATA_OUT
BLKCK
STATUS
BP1
DECK_AD1
DECK_AD2
MOTOR
PLUNGER
REC
DMT
PLLCE
PLLDA
PLLCK
SD
ST/DO
CDRST
CD_RST
C2CBJF000007 IC302 MICROPROCESSOR
/RESTSW
STOCK_SW
PLAY_SW
BT_SW
OPEN_SW
CR16SWITCH
/RESET
Q306
RESET SWITCH
S701 (RESET)
S1 (STOCK)
S2 (PLAY)
S3 (BOTTOM)
S4 (OPEN)
S5 (CHANGE)


IC300
C1BB00000747
ASP IC
IN B1(2)
REC1(2)
IN C1(2)
IN D1(2)
IN A1(2)
OUT1(2)
CLOCK
DATA
JK503
AUX
CD SIGNAL
FL DISPLAY
FL601
FROM POWER
TRANSFORMER
RM11
UP/DOWN MOTOR
RM21
LOADING MOTOR
Q110
SWITCH
X300
IC304
C1BB00000715
RDS IC
IC11
C0GAG0000007
UP/DOWN MOTOR
DRIVER
IC21
C0GAG0000007
LOADING MOTOR
DRIVER
IC600
C0HBB0000033
FL DRIVER
GRID1
GRID18
SEG1
SEG35
/RESET
/CS
SCK
SDATA
Q1
(SENSOR)
RDS_CLK
RDS_DAT
ASP_CLK
ASP_DAT
M2_F
M2_R
M1_F
M1_R
/FL_RESET
FL_CS1/EFP_RXD1
FL_CLK/EFP_CLK1
FL_DOUT/EXP_TXD1
POS
C2CBJF000007
IC302
MICROPROCESSOR
VOL_JOG
RMT
MBP1
MBP2
Xout
Xin
Xcin
Xcout
(JOG VOL)
VR600
Z601
(REMOTE SENSOR)
µP
BEAT PROOF
CONTROL
Q307,Q308
X301
X302



IC501
C0AABB000117
DUAL OP-AMP
5(3)
7(1)
Q721(Q720)
AGC
Q713
(Q712)
MUTING SWITCH
Q710
(Q711)
MUTING SWITCH
Q718(Q719)
MUTING SWITCH
HP_L(R)
Q501
VOLTAGE REGULATOR
+B
Q502,Q508,Q509
STABILIZER/ VOLTAGE REGULATOR/ CURRENT LIMITING
SUB+B
Q704
MUTING CONTROL
Q515,Q516
SWITCH (DCDET)
DCDET
IC503
C0CAABE00006
REGULATOR
D803
IC502
C0DAAHG00007
SWITCHING REGULATOR
Q700~Q703
SWITCH (FAN MOTOR SUPPLY)
FAN
M
Q705
SWITCH
40
MUTEA
79
/CD
47
DCDET
KEY SW
KEY1~3
93~95
KEY SW
SYNC
20
SYNC
MUTE_H
21
MUTE_H
C2CBJF000007
IC302
MICROPROCESSOR
KEY_LED, SEQ_LED, RE_LED
60,85, 86
PCONT
46
PCONT
Q600~ Q602
LED DRIVER
D601,D602, D612
Q301,Q303
DECK SUPPLY SWITCH
Q302
PCONT SWITCH



SIGNAL LINES

- : MAIN SIGNAL LINE
- : FM SIGNAL LINE
- : FM OSC SIGNAL LINE
- : AM SIGNAL LINE
- : AM OSC SIGNAL LINE
- : FM /AM SIGNAL LINE
- : CD SIGNAL LINE
- : CD-DA (AUDIO /VIDEO) SIGNAL LINE
- : AUX SIGNAL LINE
- : PLAYBACK SIGNAL LINE
- : RECORD SIGNAL LINE

( ) Indicates the Pin No. of Right Channel.

NOTE : Signal Lines are applicable to the Left Channel only.

14 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S1	Stock Switch
S2	Play Switch
S3	Bottom Switch
S4	Open Switch
S5	Change Switch
S600	Tape Eject Switch
S601	CD1 Switch
S602	CD2 Switch (Tape Eject)
S603	CD3 Switch
S604	CD4 Switch
S605	CD5 Switch
S606	CD Play/Pause Switch
S607	Tape Switch
S608	Tuner/Band Switch
S609	Track Up Switch
S610	Track Down Switch
S611	Album Up Switch
S612	Album Down Switch
S613	Stop/Demo Switch
S614	Power Switch
S615	AUX Switch
S616	Down /Rew Switch
S617	CD Check Switch
S618	Up/FF Switch
S619	Rec Switch
S620	Open/Close Switch
S621	CD Change Switch
S622	Remaster Switch
S623	SSEQ Switch
S701	Reset Switch
S971	Mode Switch
S972	Half Switch
S973	CR02 Switch
S974	Recinh_r Switch
S975	Recinh_f Switch

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	...Playback	< >	...FM
(( ))	...CD	( )	...AM

- **Importance safety notice:**

  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

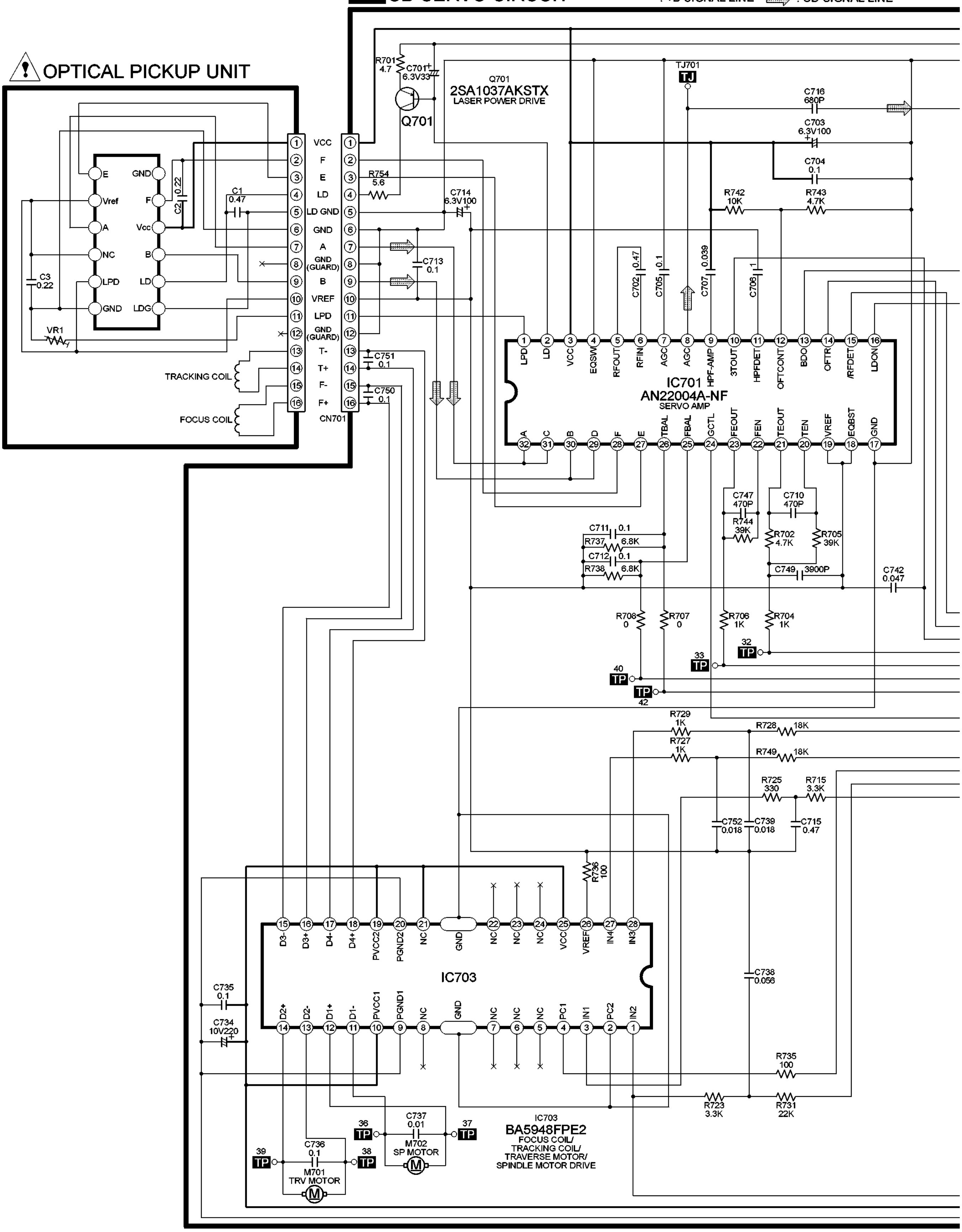
IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

SCHEMATIC DIAGRAM - 1

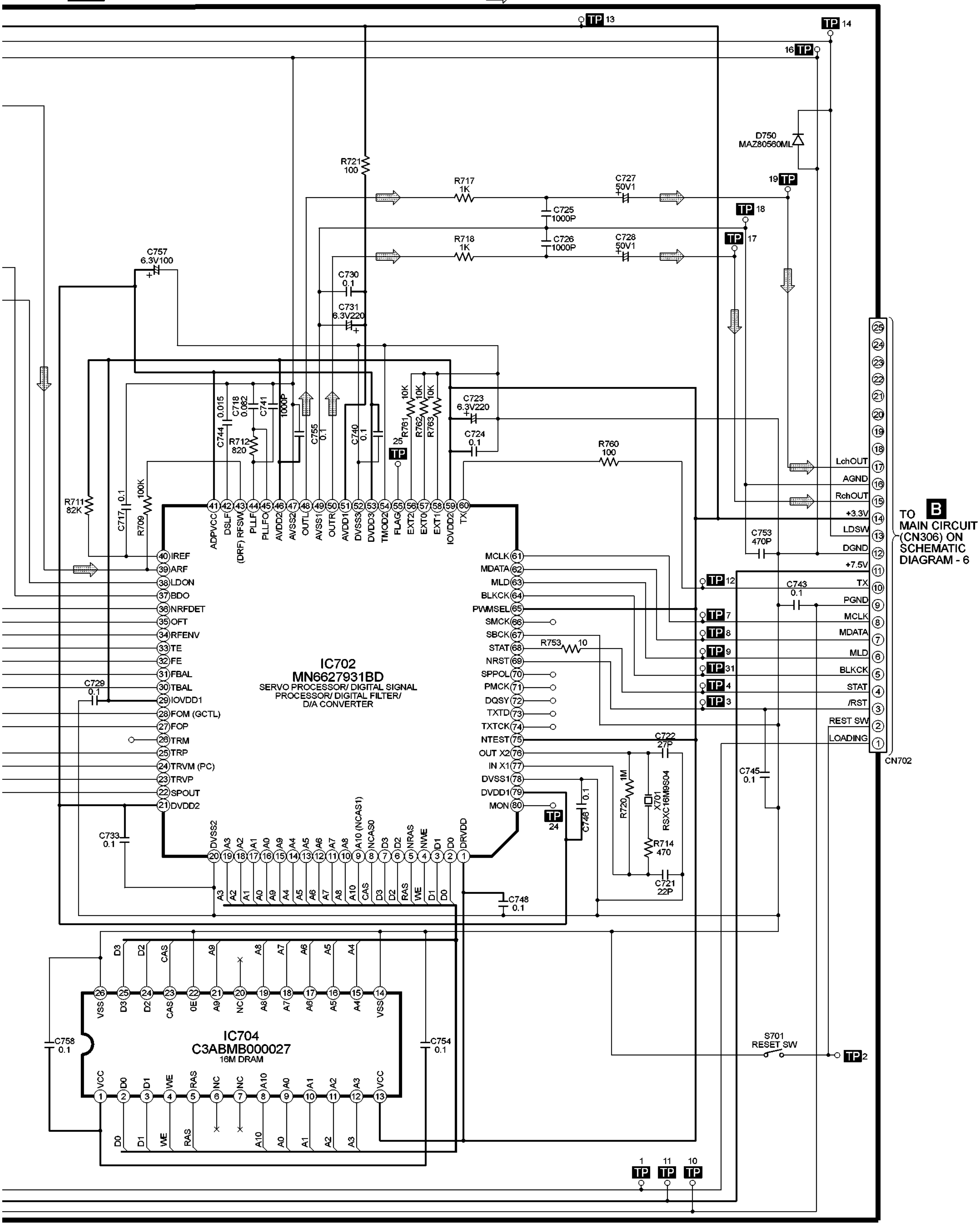
A CD SERVO CIRCUIT



SCHEMATIC DIAGRAM - 2

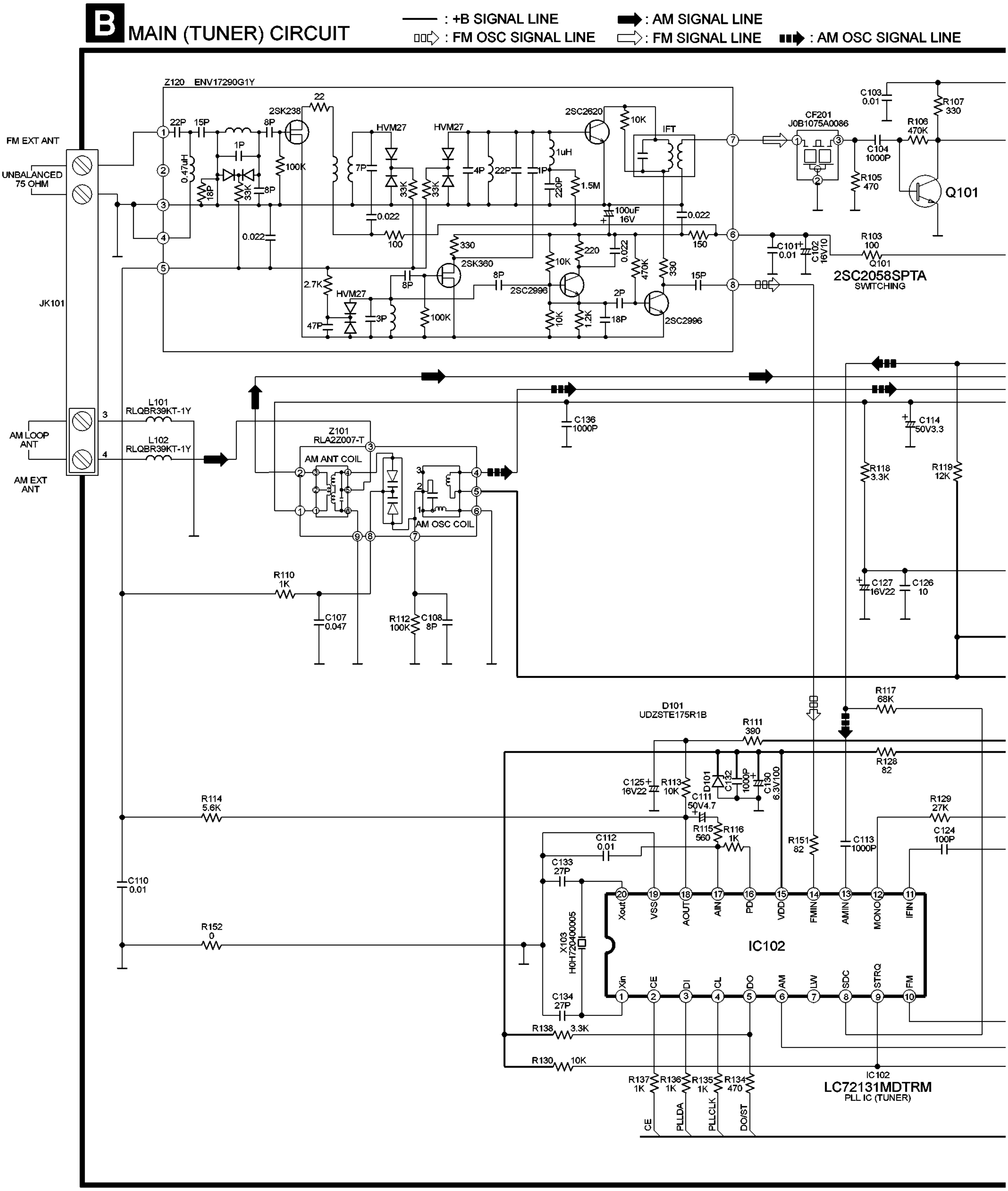
A CD SERVO CIRCUIT

: +B SIGNAL LINE : CD SIGNAL LINE

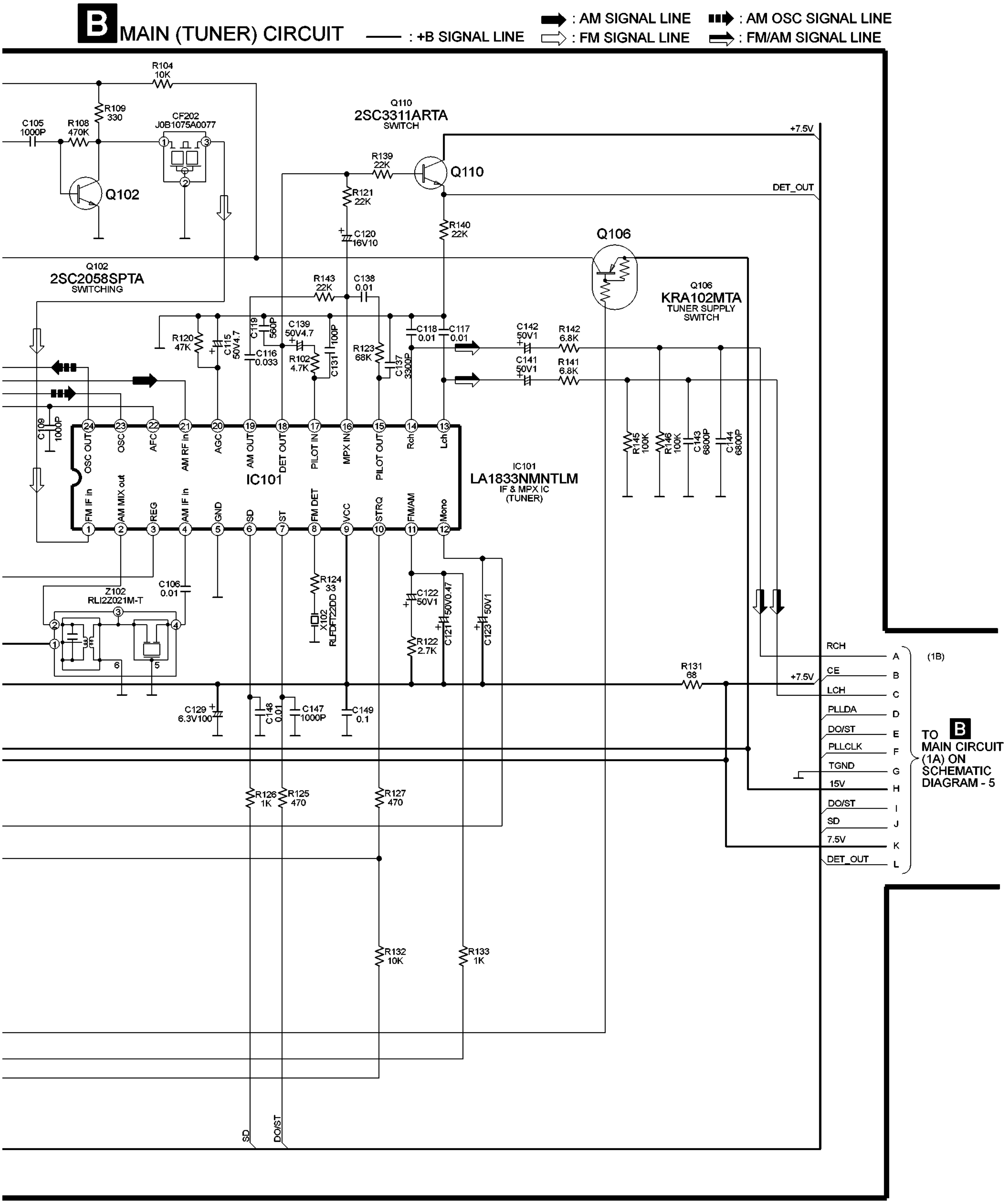


SCHEMATIC DIAGRAM - 3

B MAIN (TUNER) CIRCUIT



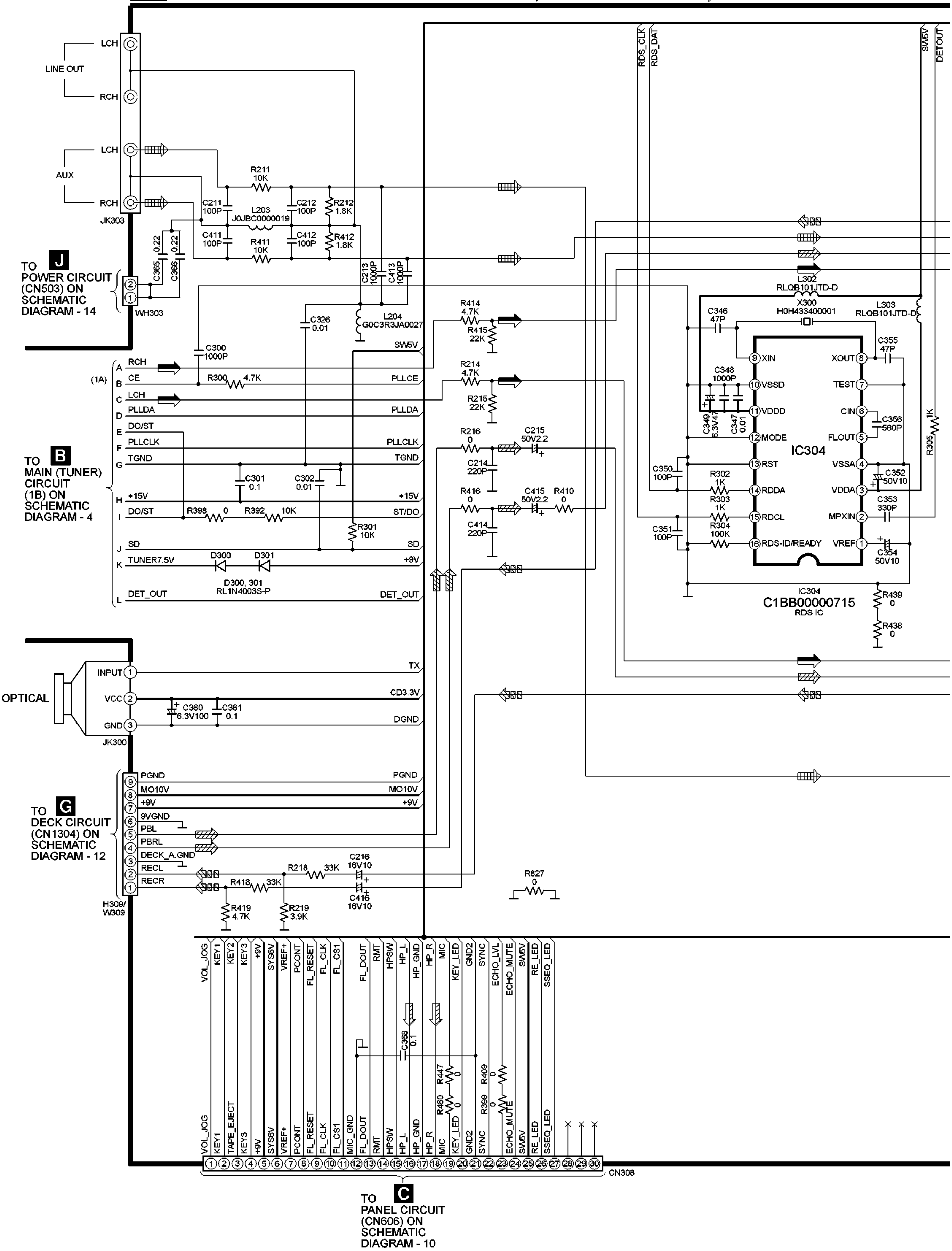
SCHEMATIC DIAGRAM - 4



SCHEMATIC DIAGRAM - 5

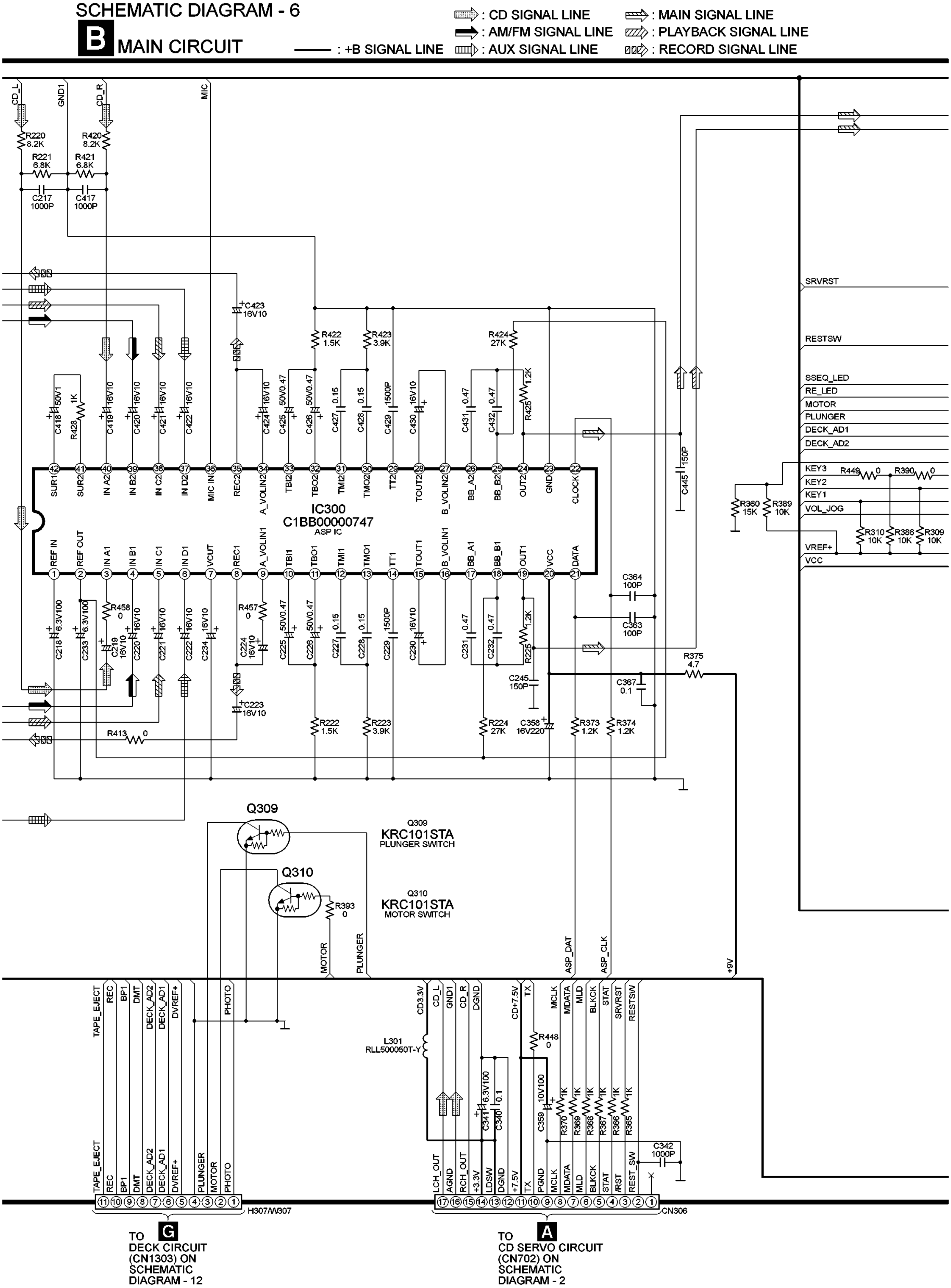
B MAIN CIRCUIT

——— : +B SIGNAL LINE
➡ : AM/FM SIGNAL LINE
⇨ : AUX SIGNAL LINE
⇨ : MAIN SIGNAL LINE
⇨ : PLAYBACK SIGNAL LINE
⇨ : RECORD SIGNAL LINE



SCHEMATIC DIAGRAM - 6

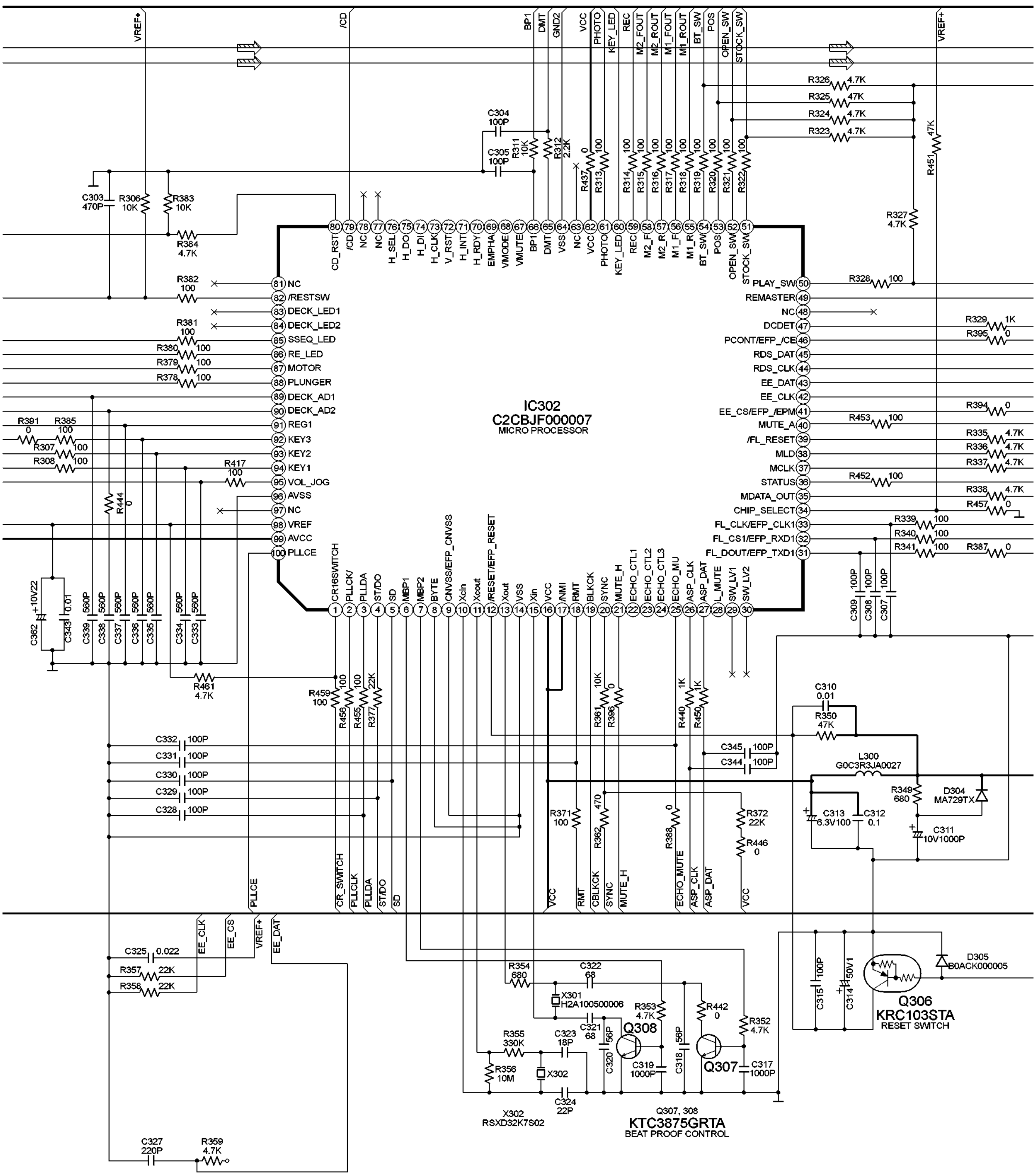
B MAIN CIRCUIT



SCHEMATIC DIAGRAM - 7

B MAIN CIRCUIT

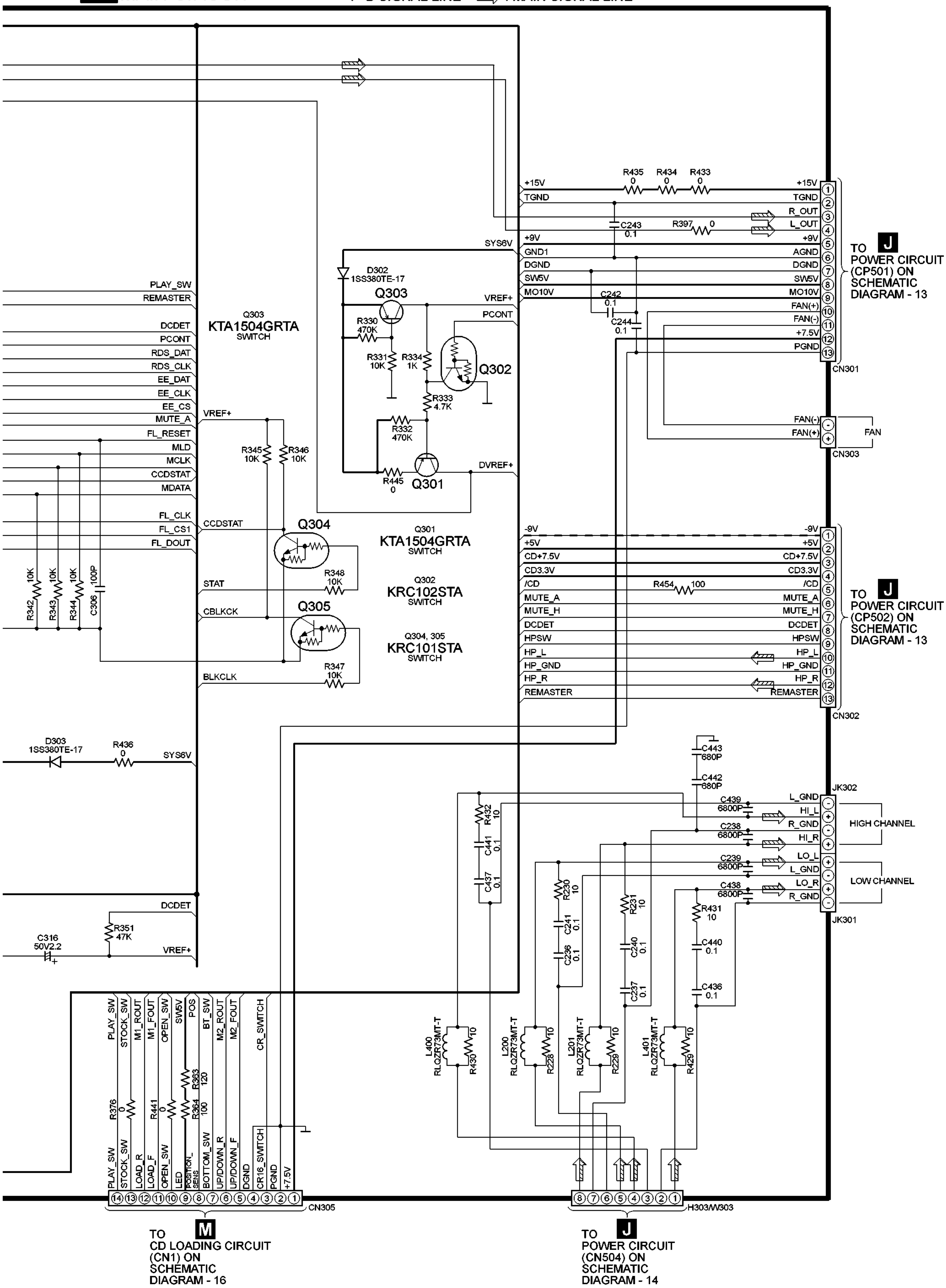
——— : +B SIGNAL LINE ⇨ : MAIN SIGNAL LINE



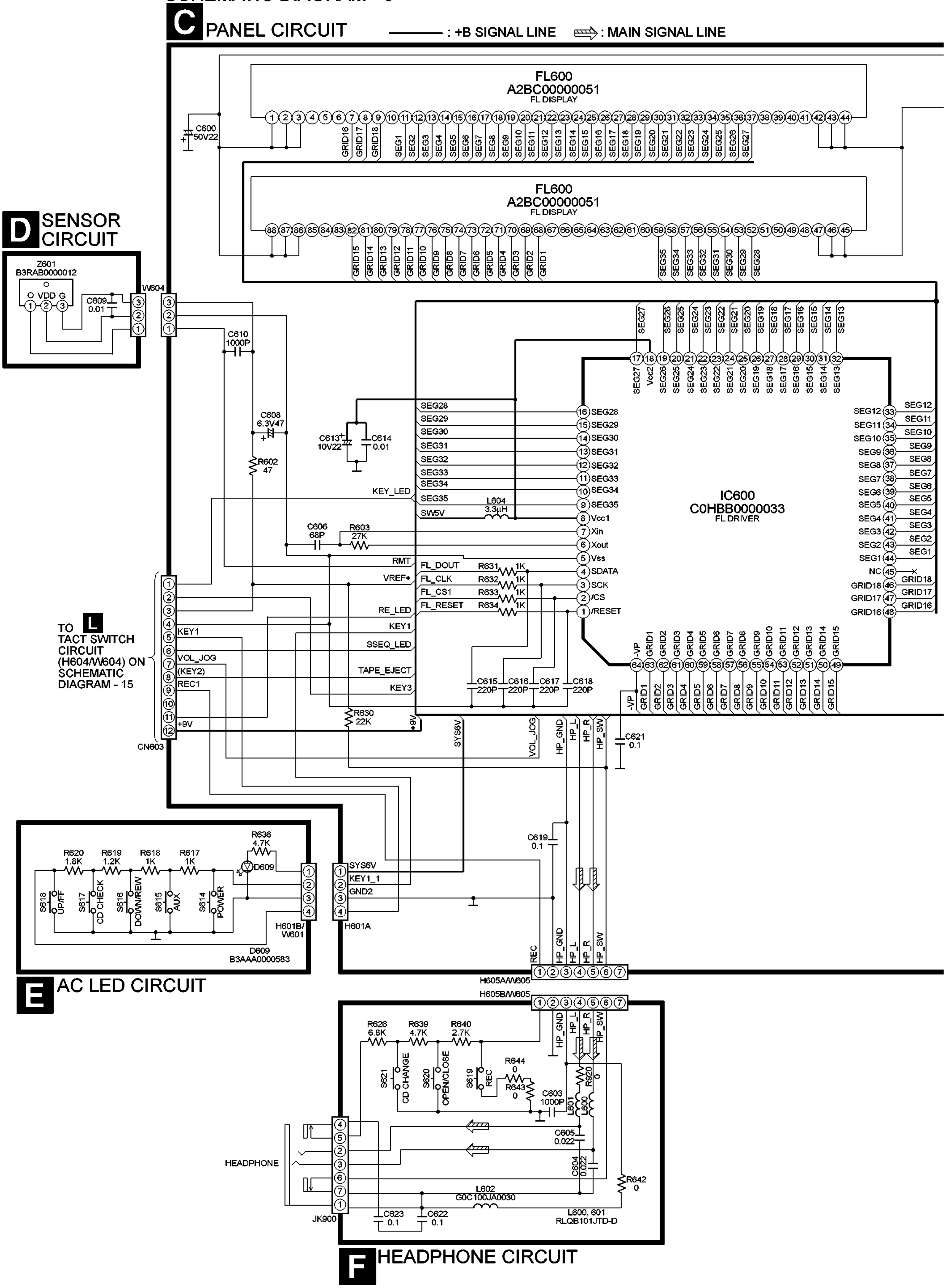
SCHEMATIC DIAGRAM - 8

B MAIN CIRCUIT

- - - : -B SIGNAL LINE
—— : +B SIGNAL LINE
⇨ : MAIN SIGNAL LINE



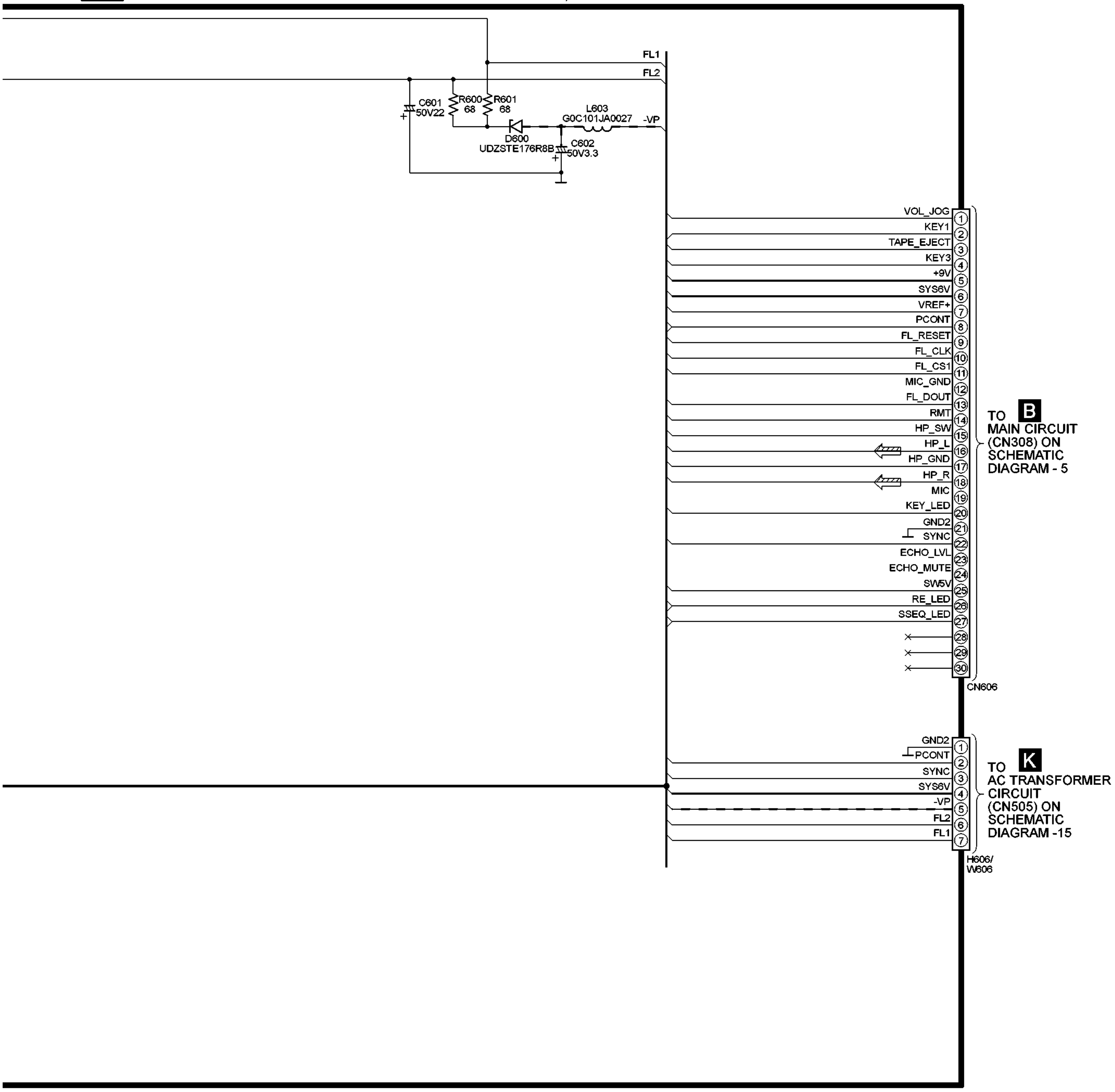
SCHEMATIC DIAGRAM - 9



SCHEMATIC DIAGRAM - 10

C PANEL CIRCUIT

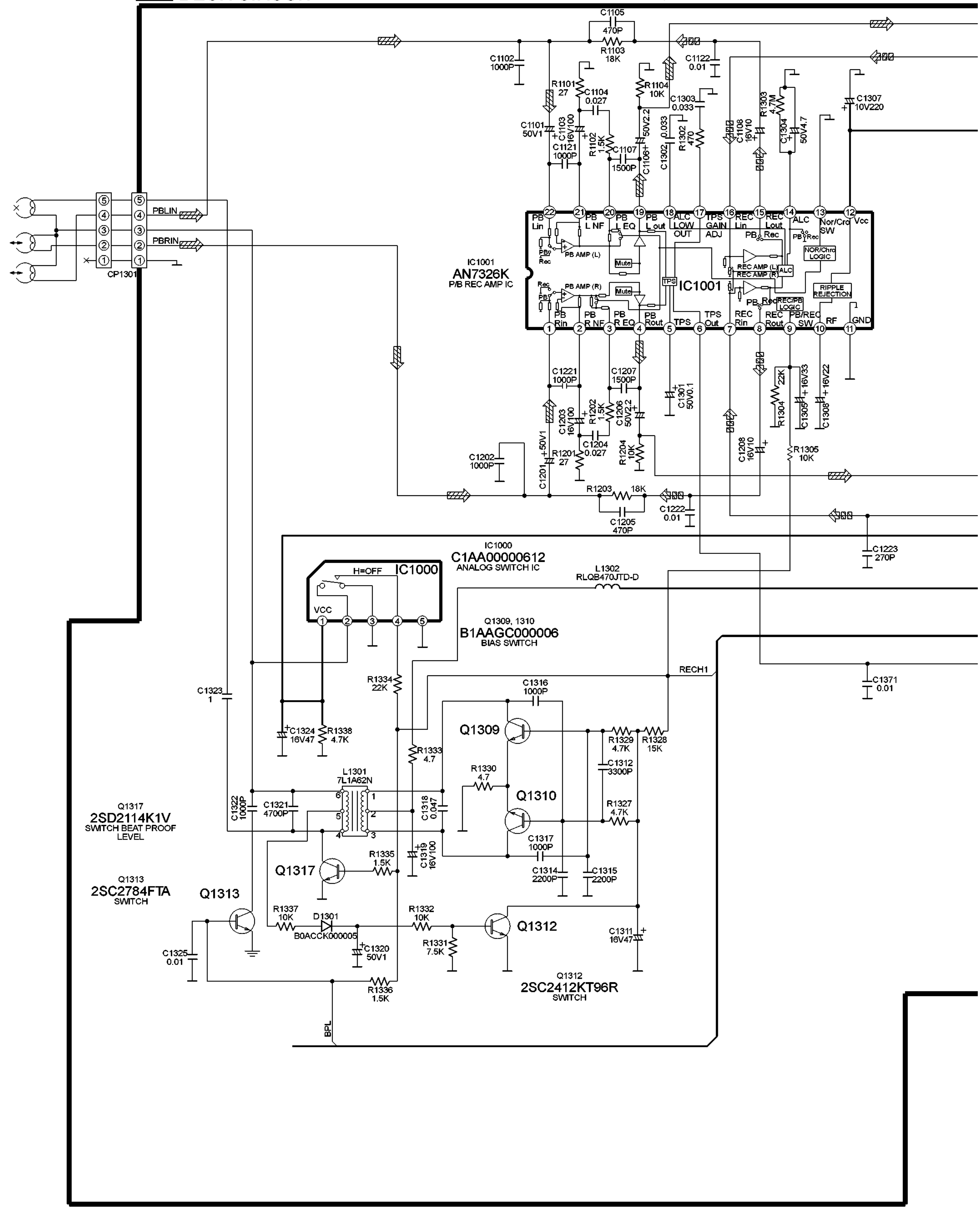
- - - - : -B SIGNAL LINE
——— : +B SIGNAL LINE
⇨ : MAIN SIGNAL LINE



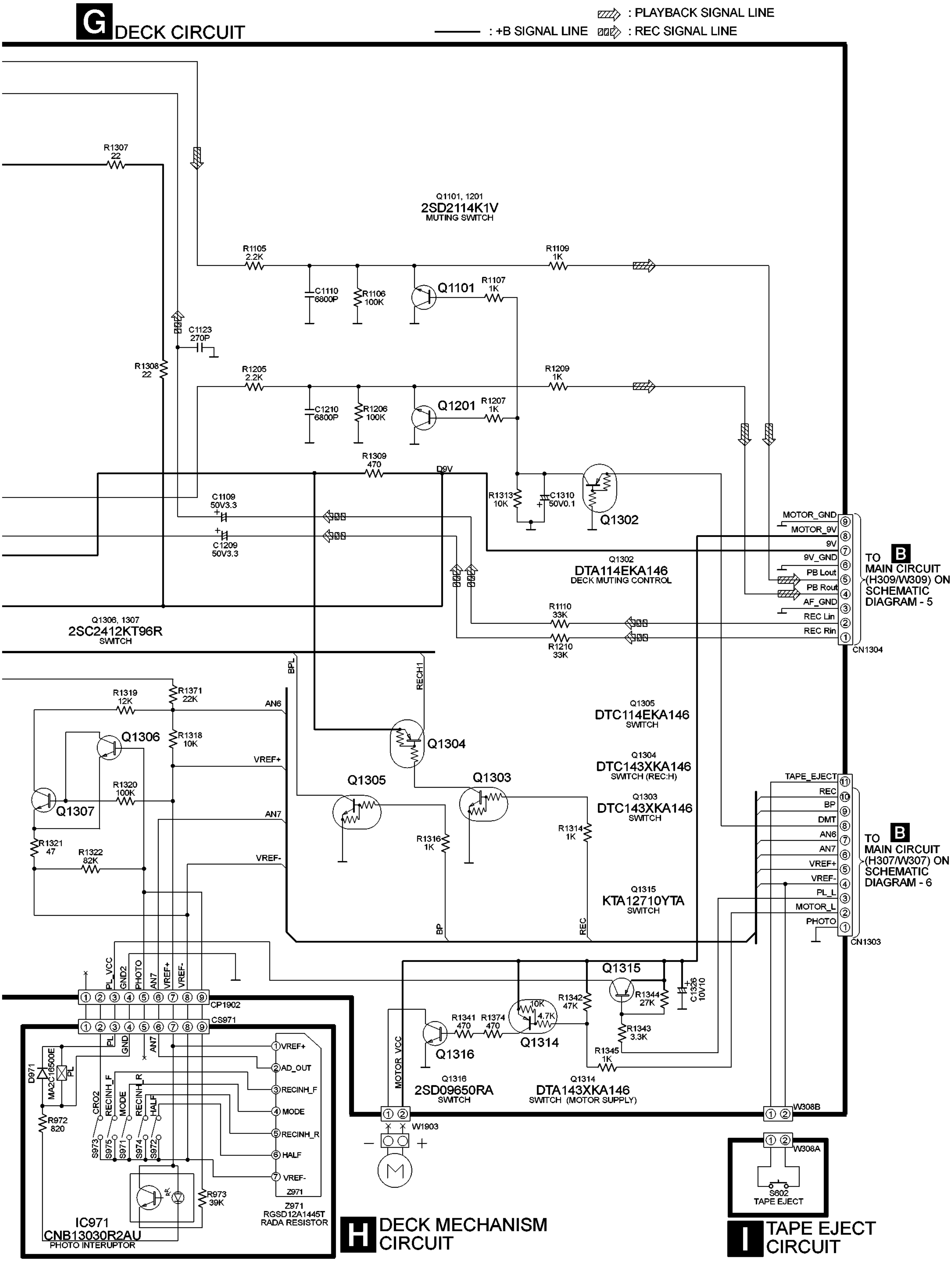
SCHEMATIC DIAGRAM - 11

G DECK CIRCUIT

: +B SIGNAL LINE
: PLAYBACK SIGNAL LINE
: REC SIGNAL LINE



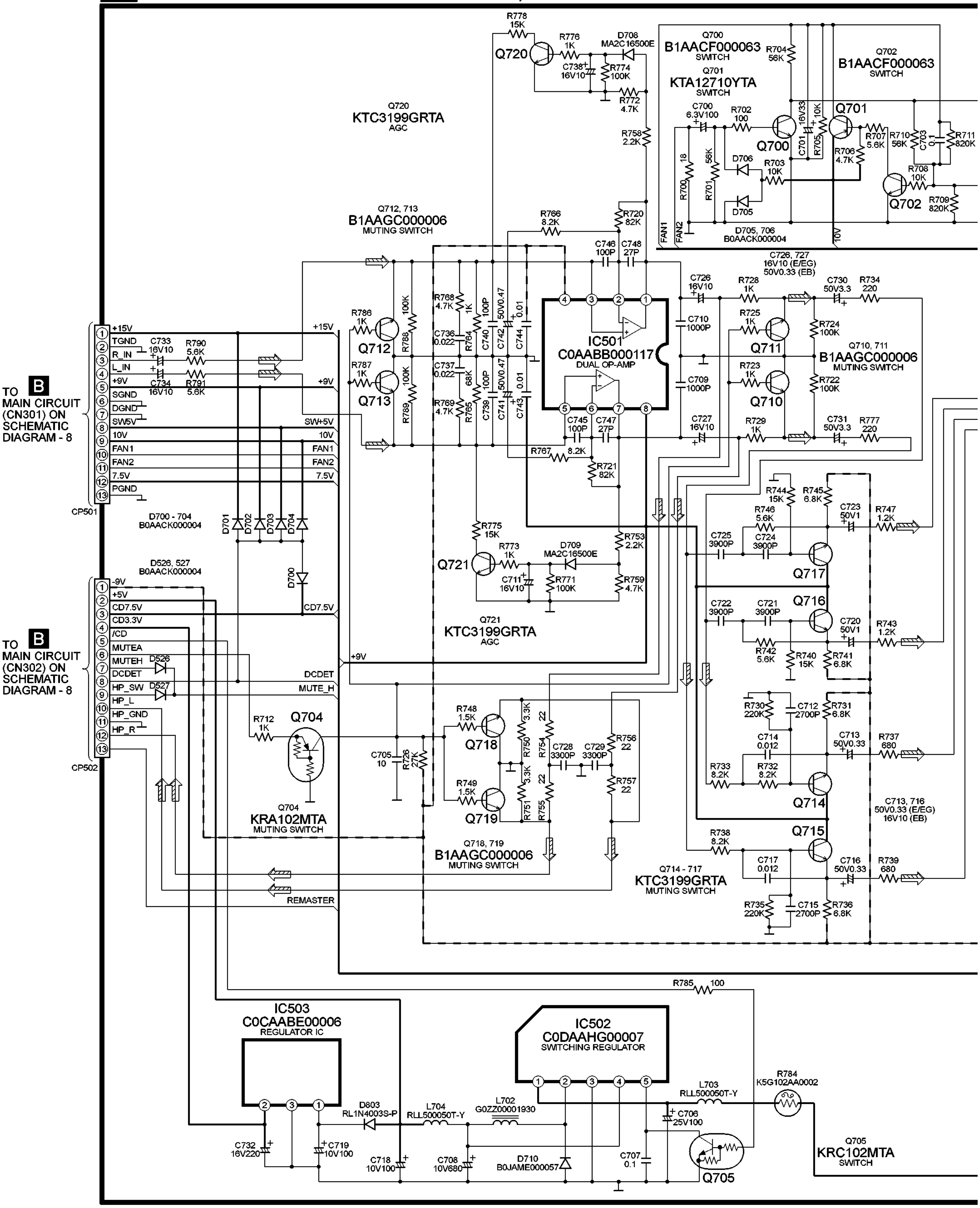
SCHEMATIC DIAGRAM - 12



SCHEMATIC DIAGRAM - 13

J POWER CIRCUIT

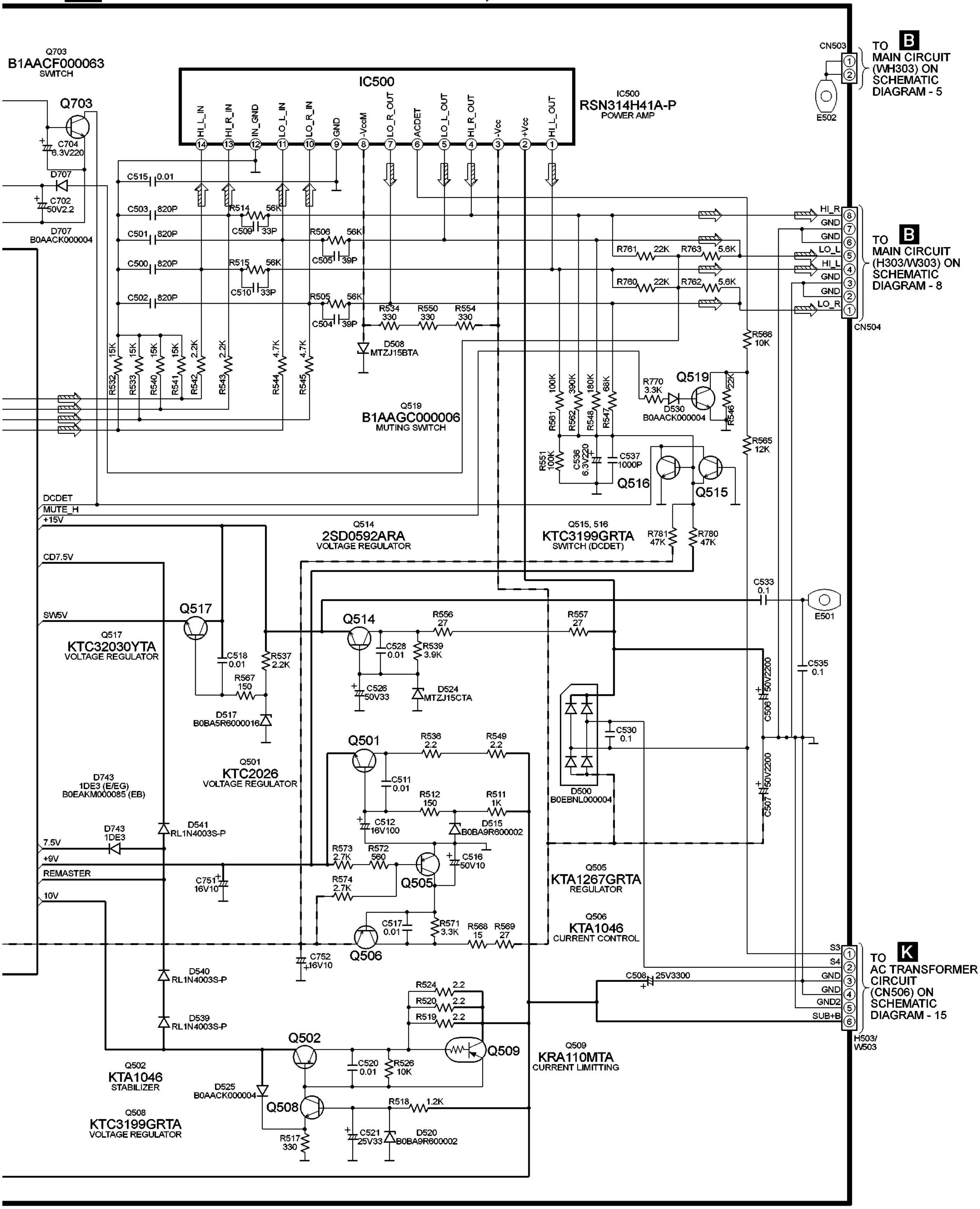
- - - - : -B SIGNAL LINE
——— : +B SIGNAL LINE
⇨ : MAIN SIGNAL LINE



SCHEMATIC DIAGRAM - 14

J POWER CIRCUIT

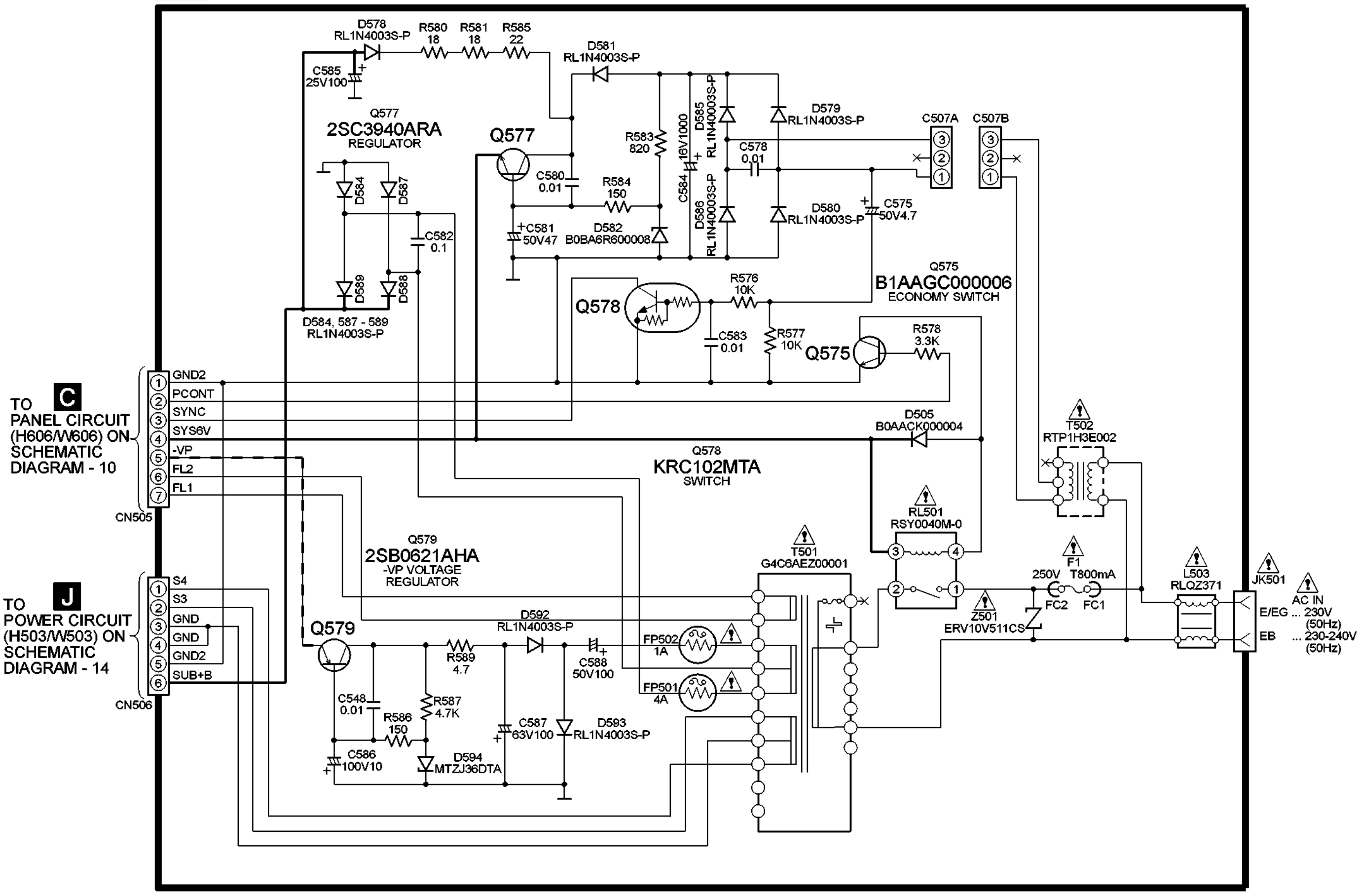
- - - - : -B SIGNAL LINE
——— : +B SIGNAL LINE
⇨ : MAIN SIGNAL LINE



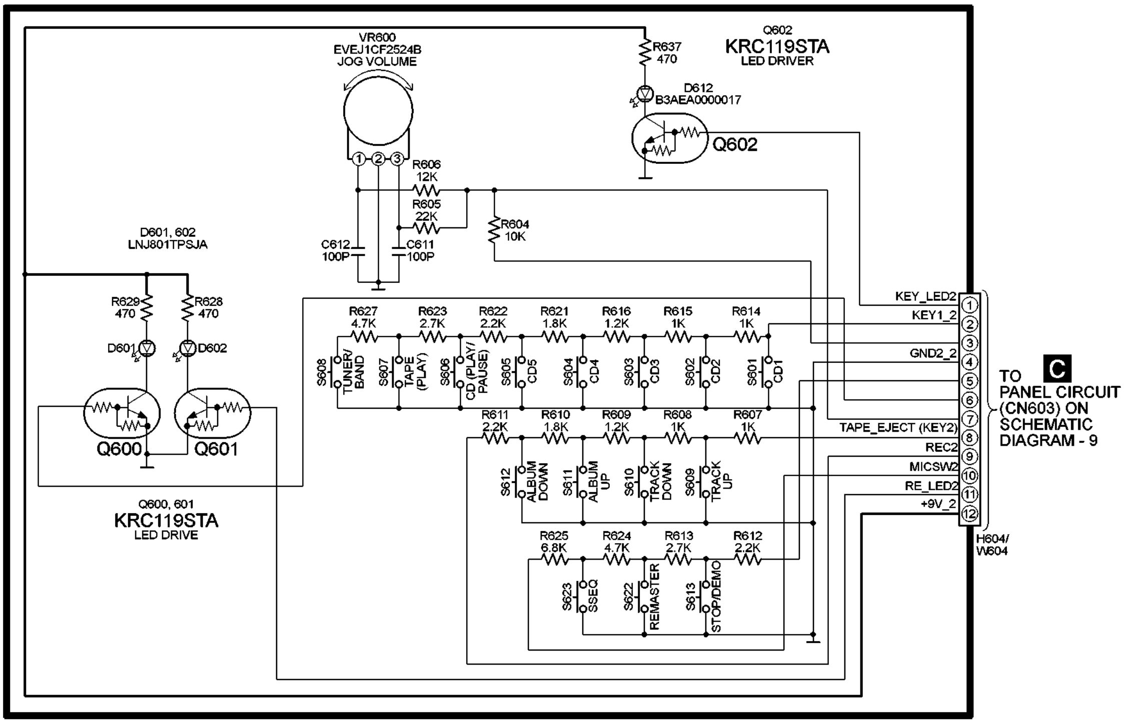
SCHEMATIC DIAGRAM - 15

K AC TRANSFORMER CIRCUIT

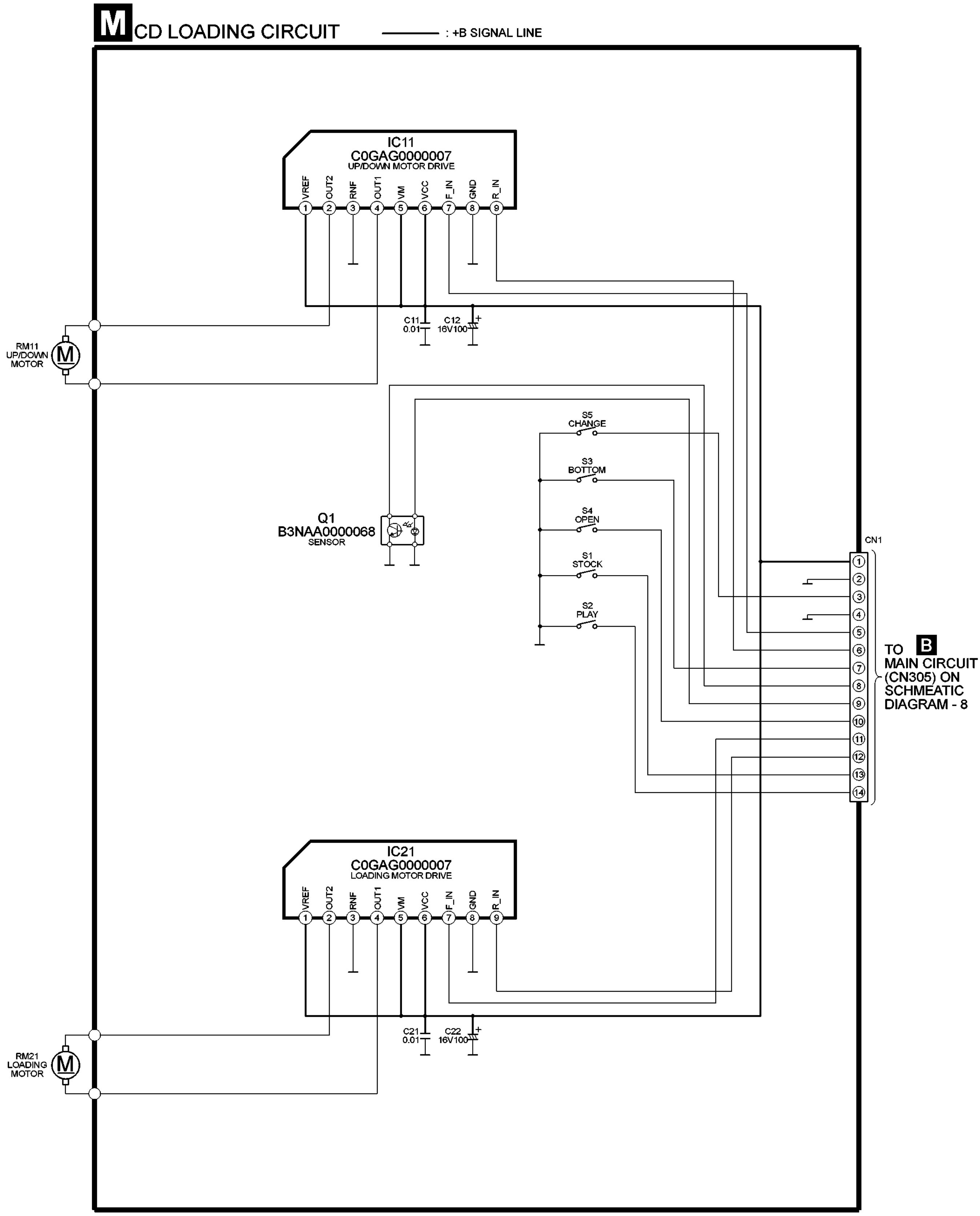
- - - : -B SIGNAL LINE
—— : +B SIGNAL LINE



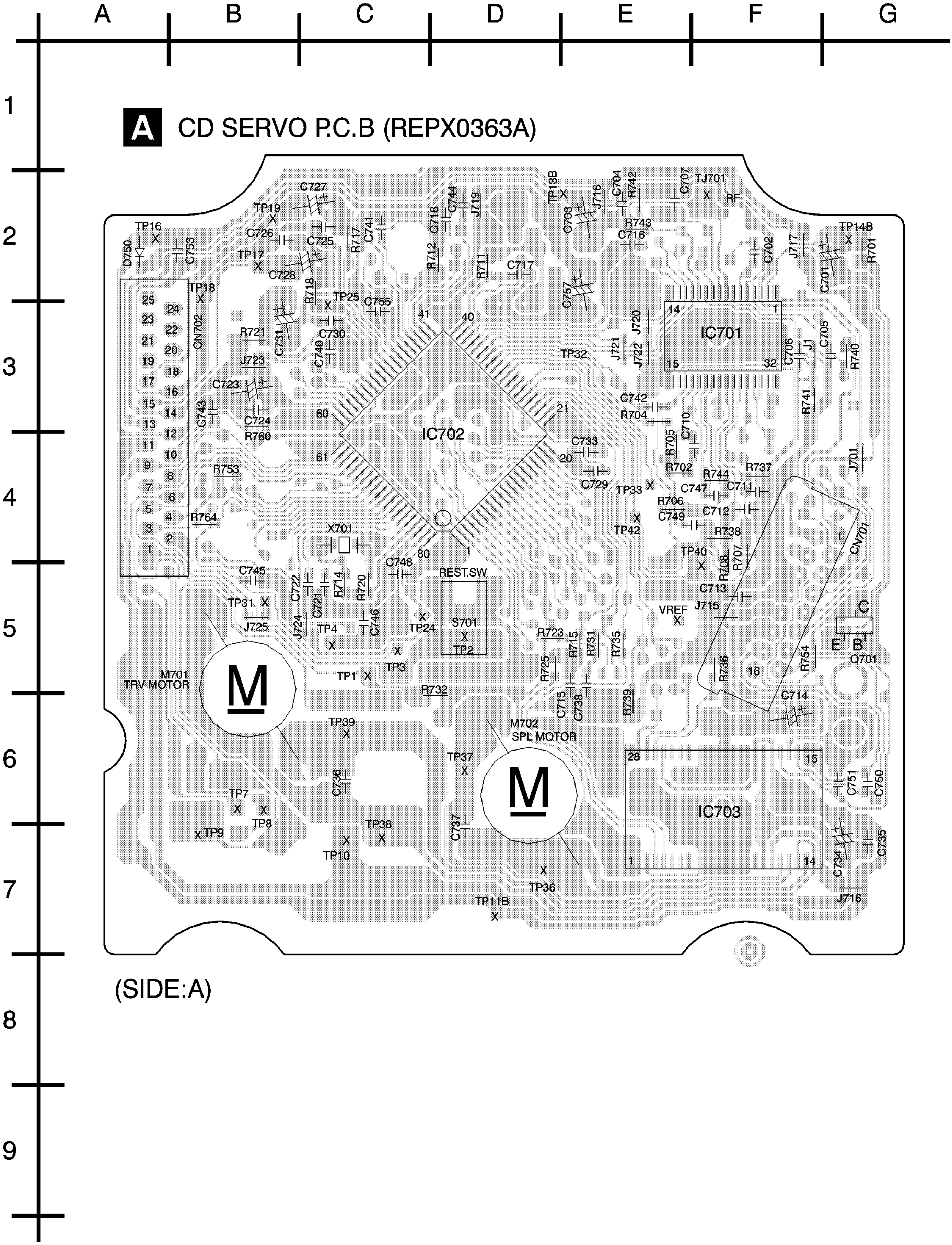
L TACT SWITCH CIRCUIT

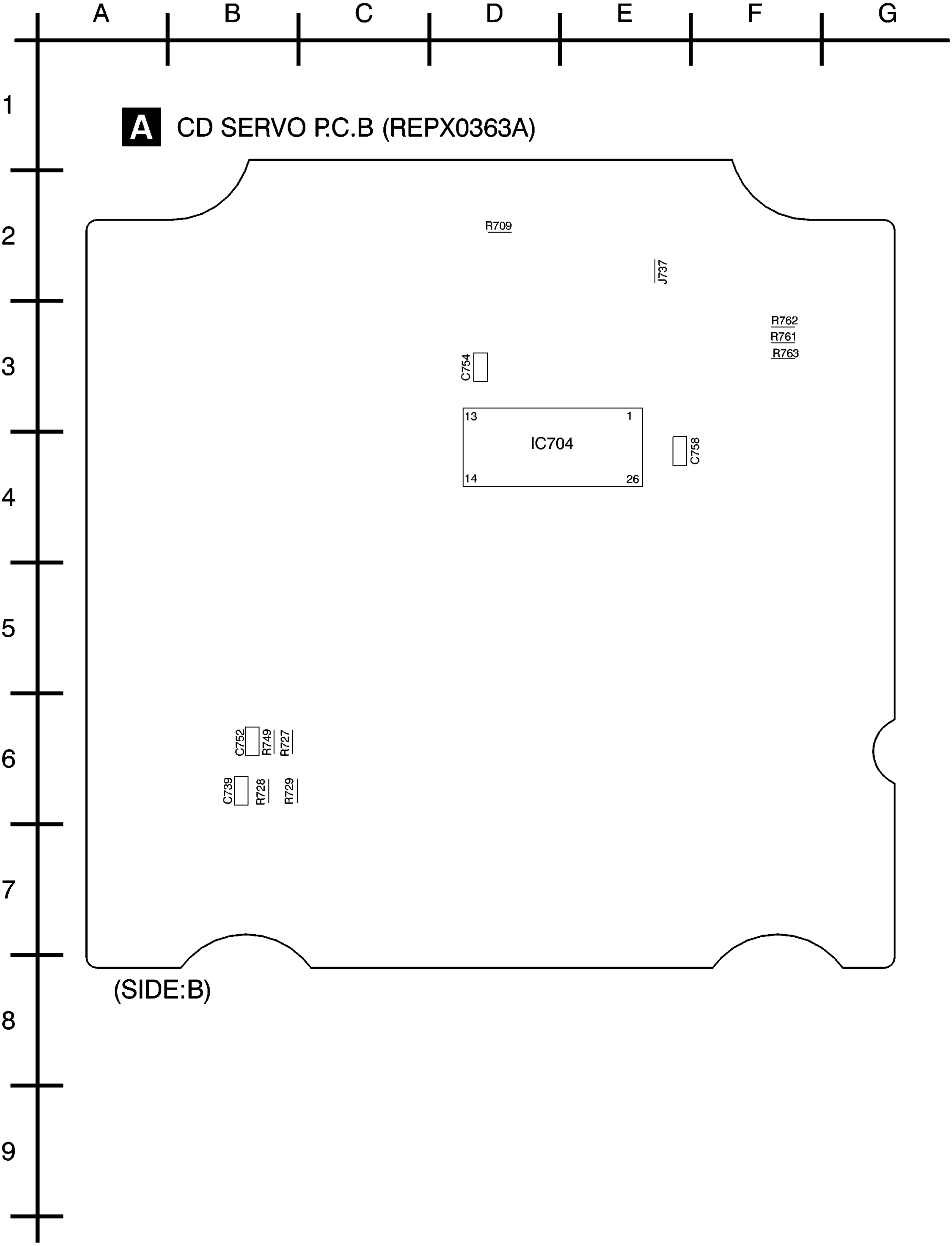


SCHEMATIC DIAGRAM - 16

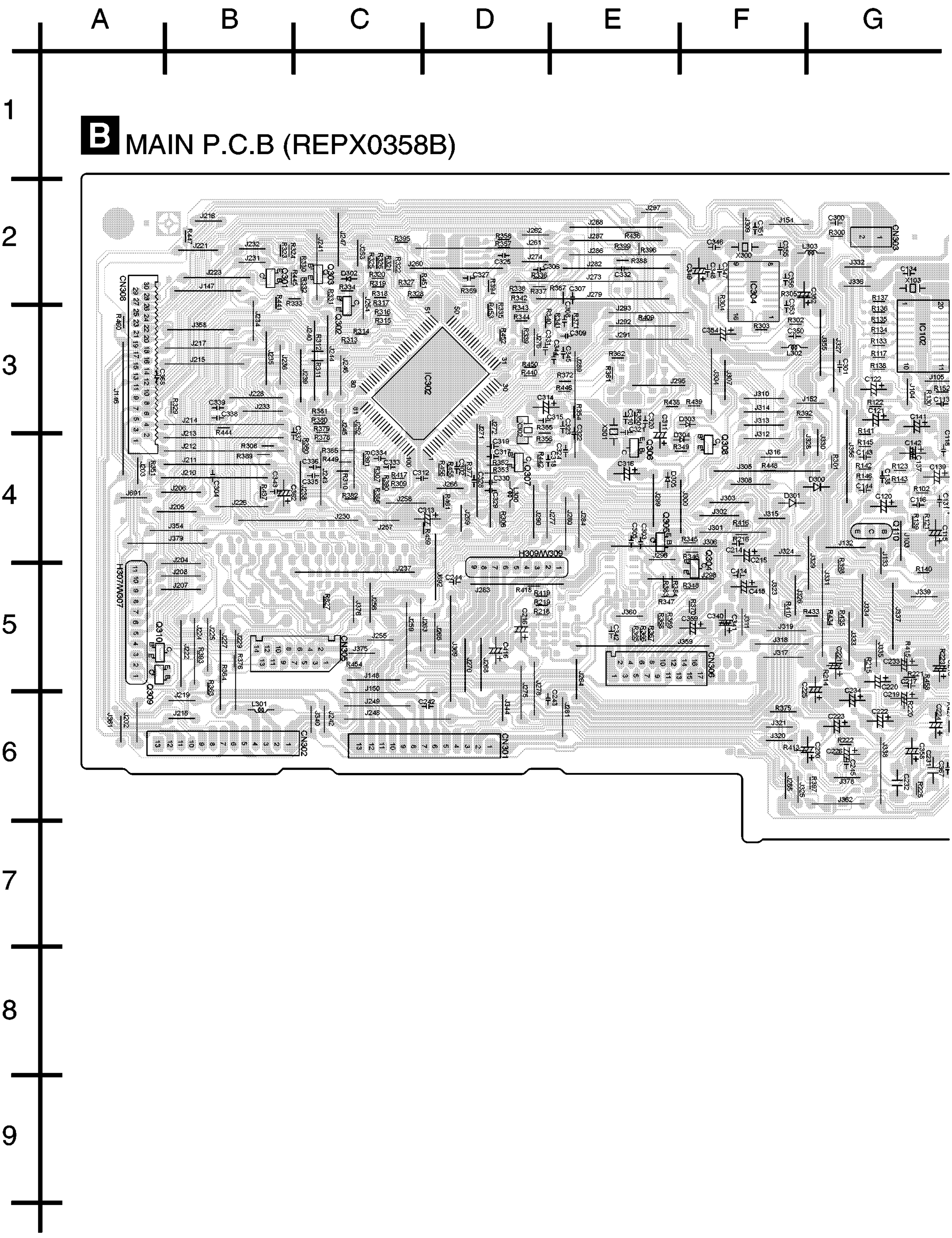


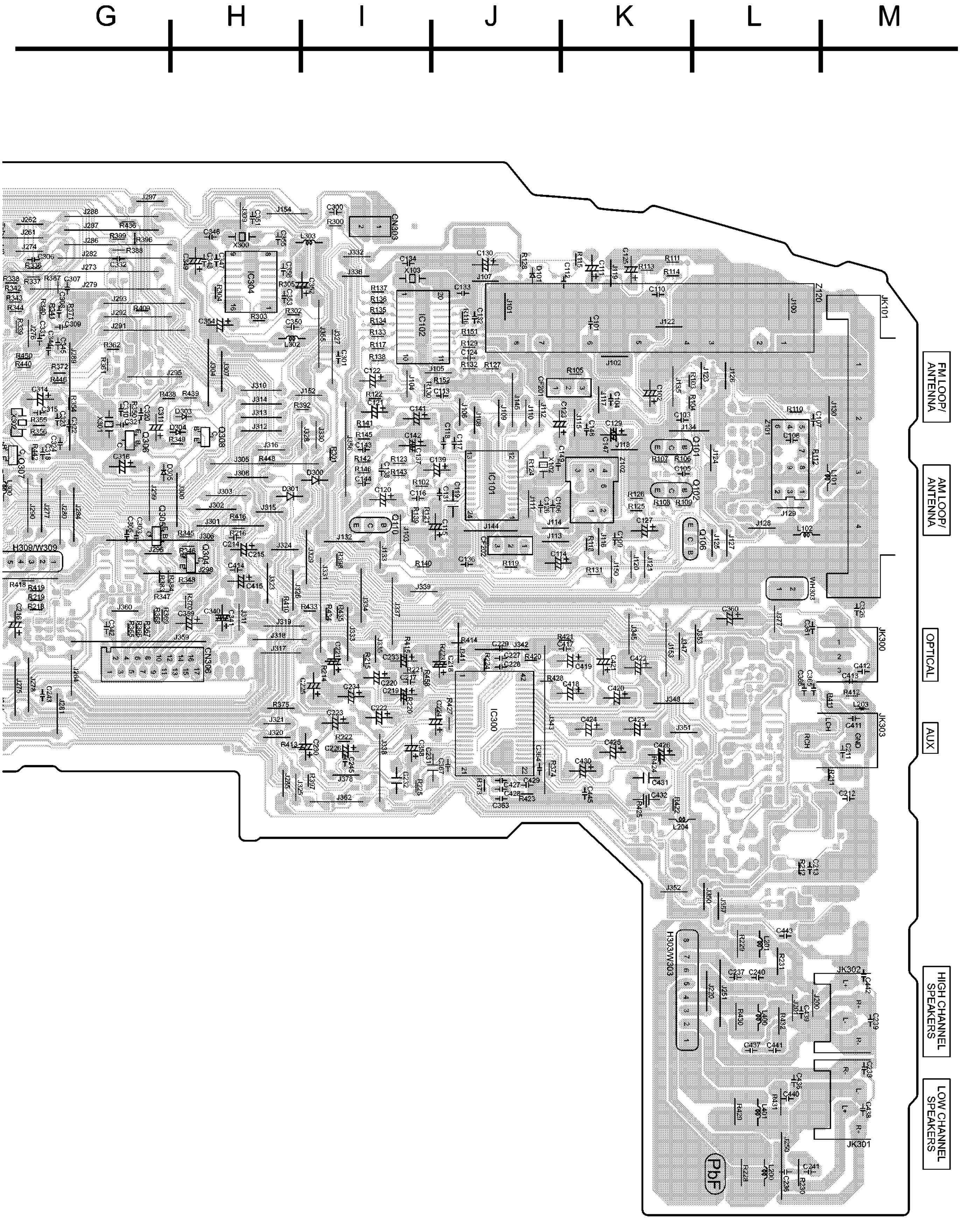
15 Printed Circuit Board



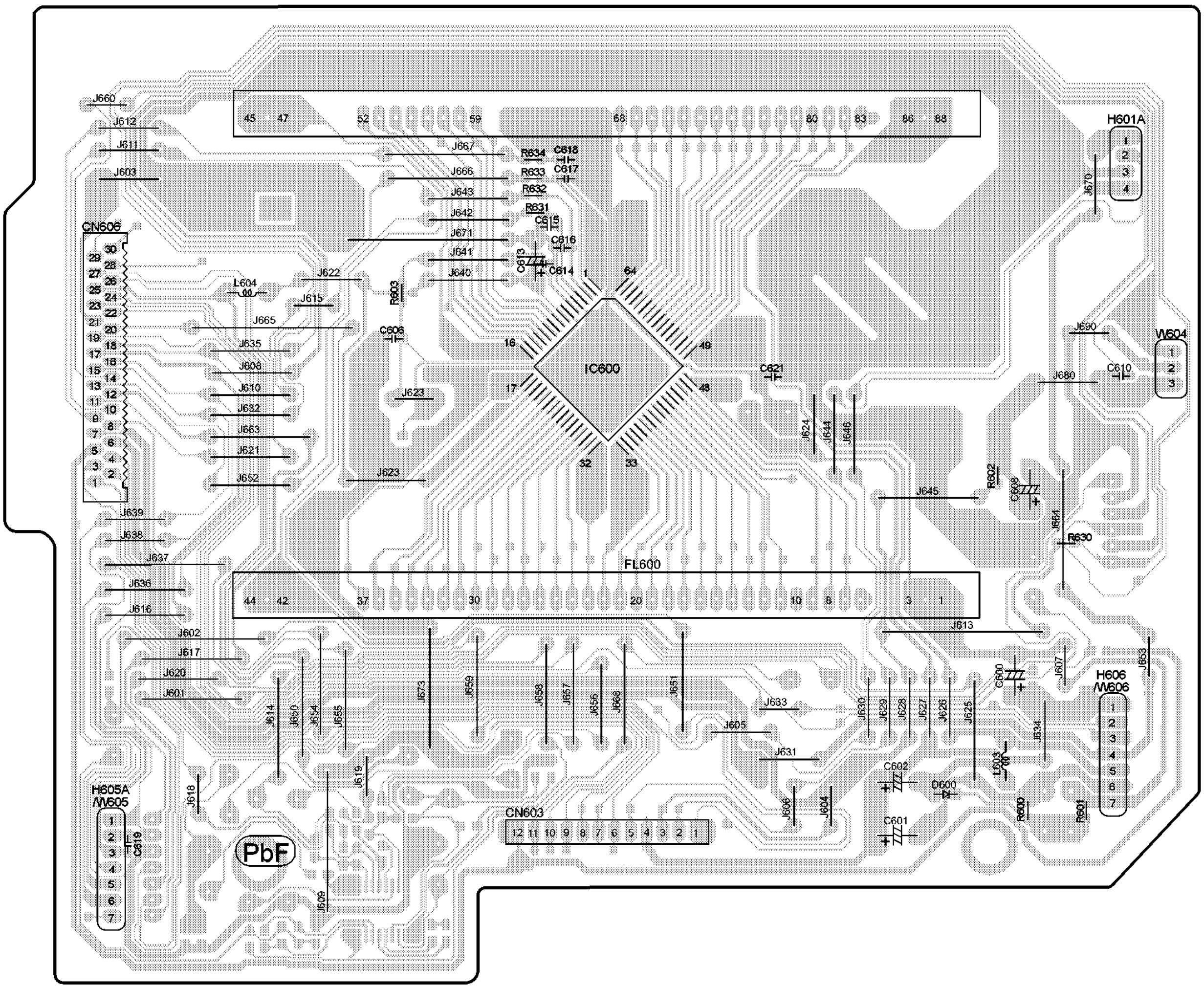

A B C D E F G
1 2 3 4 5 6 7 8 9
A CD SERVO P.C.B (REPX0363A)
R709
J737
R762
R761
R763
C754
13
1
IC704
14
26
C758
C752
R749
R727
C739
R728
R729
(SIDE:B)

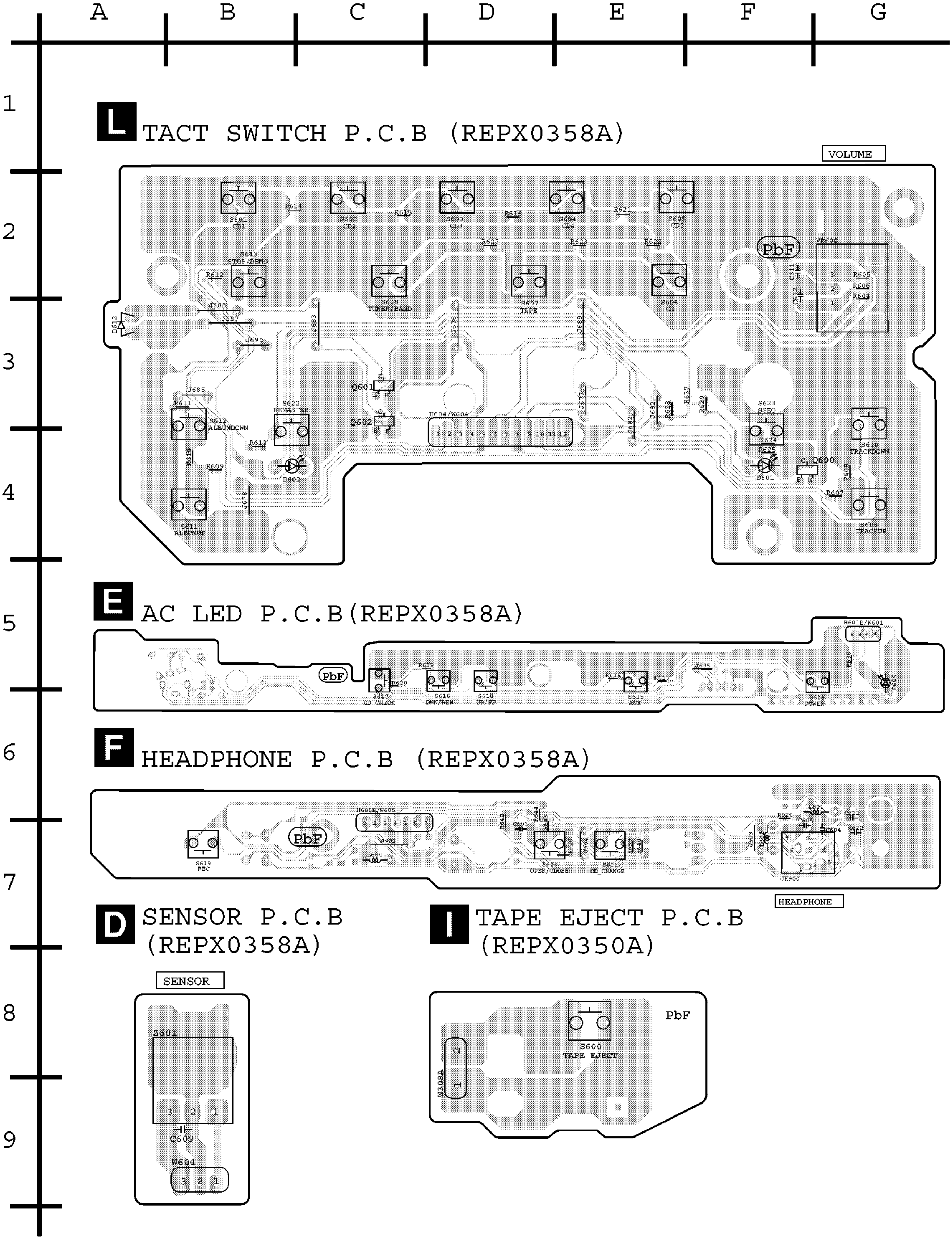
B MAIN P.C.B (REPX0358B)



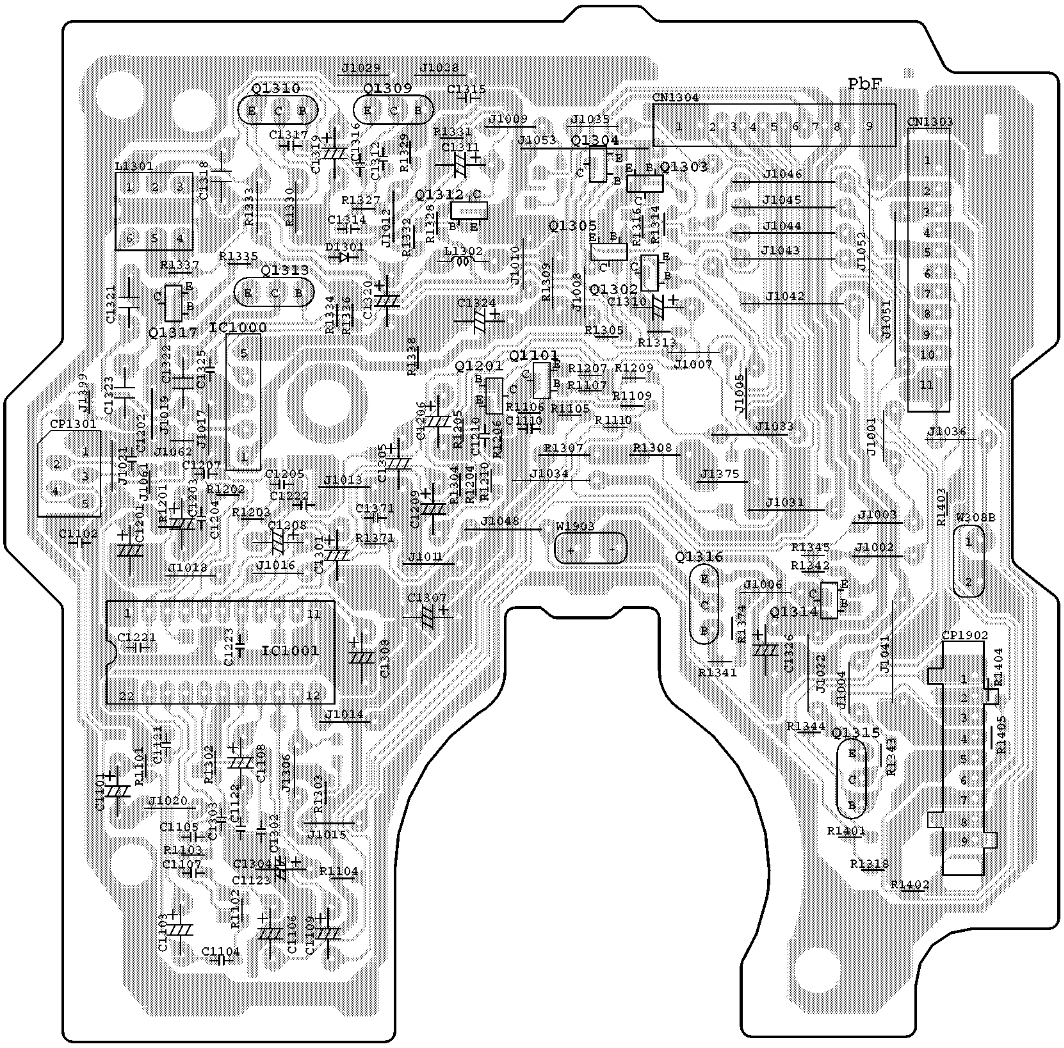

G
H
I
J
K
L
M
FM LOOP/ ANTENNA
AM LOOP/ ANTENNA
OPTICAL
AUX
HIGH CHANNEL SPEAKERS
LOW CHANNEL SPEAKERS
IC304
IC102
IC101
IC300
CN303
CN306
JK101
JK300
JK303
JK302
JK301
H309/W309
H303/W303
PbF

C PANEL P.C.B (REPX0358B)

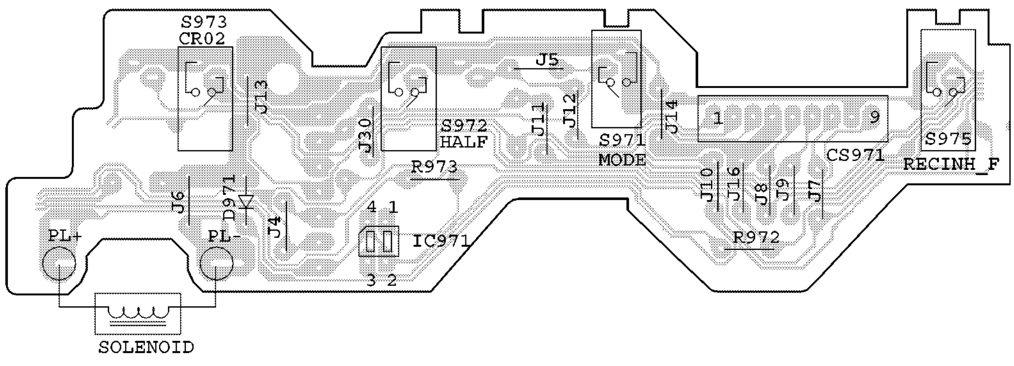



A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
L TACT SWITCH P.C.B (REPX0358A)
VOLUME
PbF
S601 CD1
S602 CD2
S603 CD3
S604 CD4
S605 CD5
S613 STOP/DEMO
S608 TUNER/BAND
S607 TAPE
S606 CD
VR600
S612 ALBUMDOWN
S622 REMASTER
Q601
Q602
H604/W604
D602
D601
S623 SSEQ
Q600
S610 TRACKDOWN
S611 ALBUMUP
S609 TRACKUP
E AC LED P.C.B(REPX0358A)
H601B/W601
PbF
S617 CD CHECK
S616 DWN/REW
S618 UP/FF
S615 AUX
S614 POWER
F HEADPHONE P.C.B (REPX0358A)
PbF
S619 REC
S620 OPEN/CLOSE
S621 CD CHANGE
JK900
HEADPHONE
D SENSOR P.C.B (REPX0358A)
SENSOR
Z601
C609
W604
I TAPE EJECT P.C.B (REPX0350A)
PbF
S600 TAPE EJECT
W308A

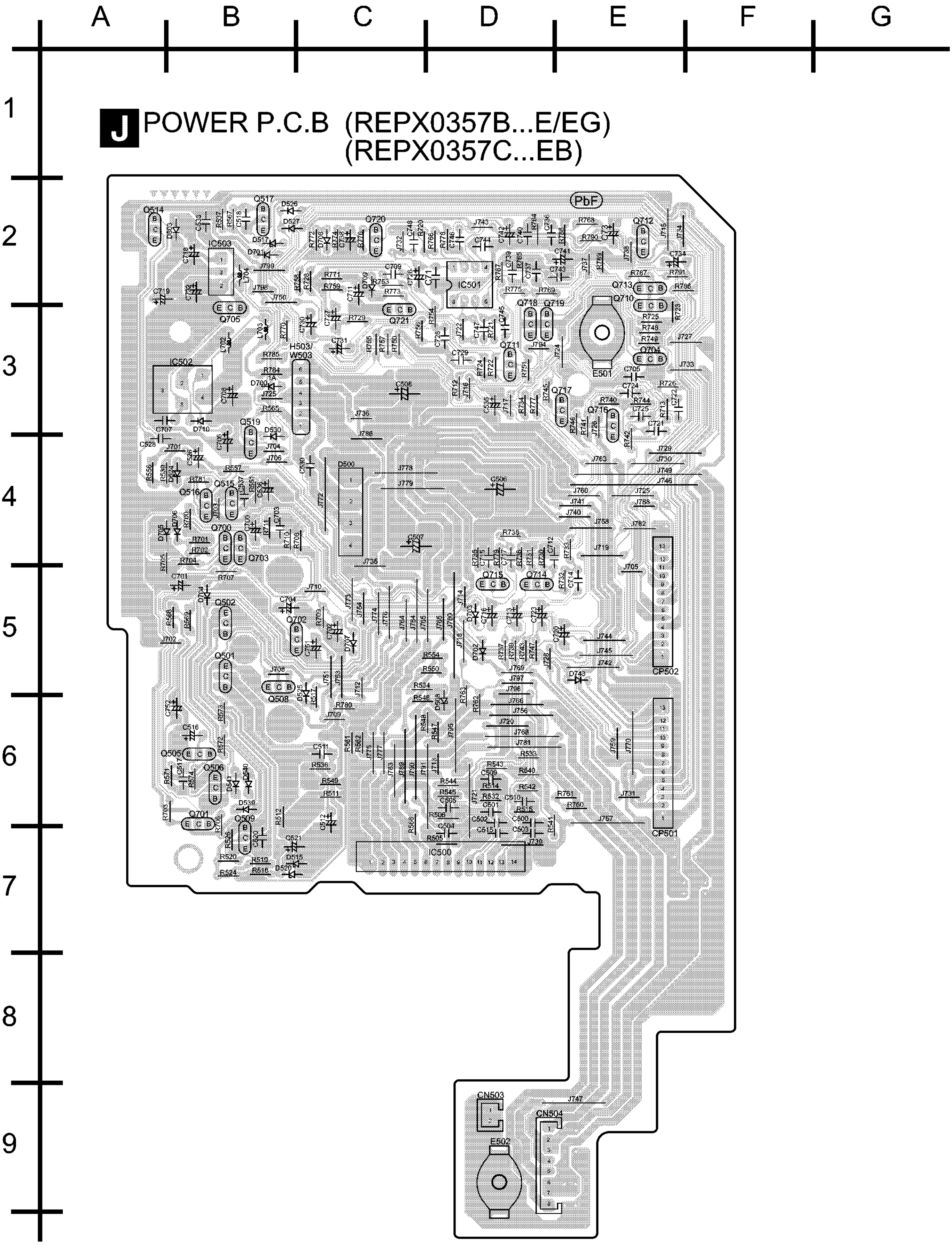
G DECK P.C.B (REPX0350A)



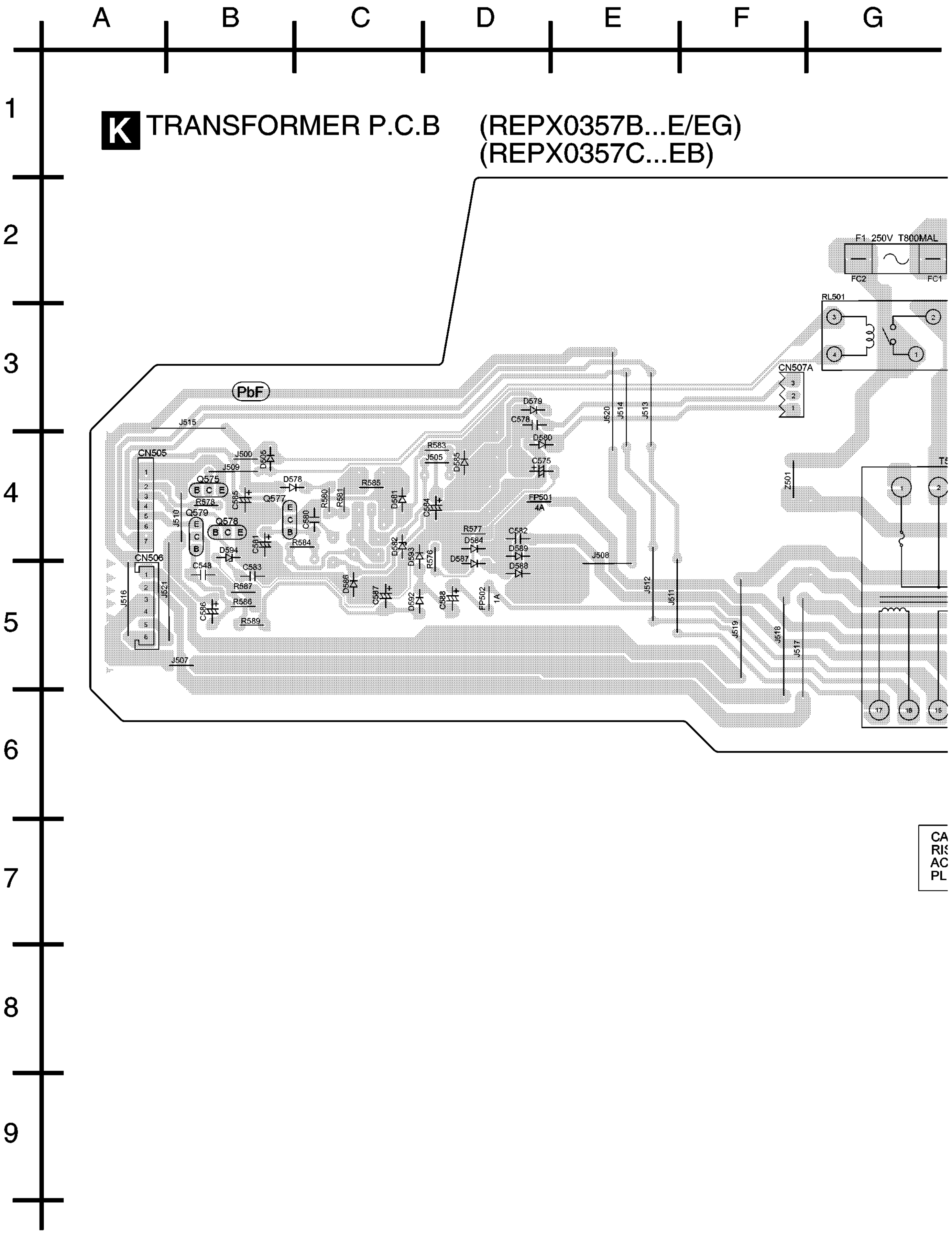
H DECK MECHANISM P.C.B (REPX0321H)

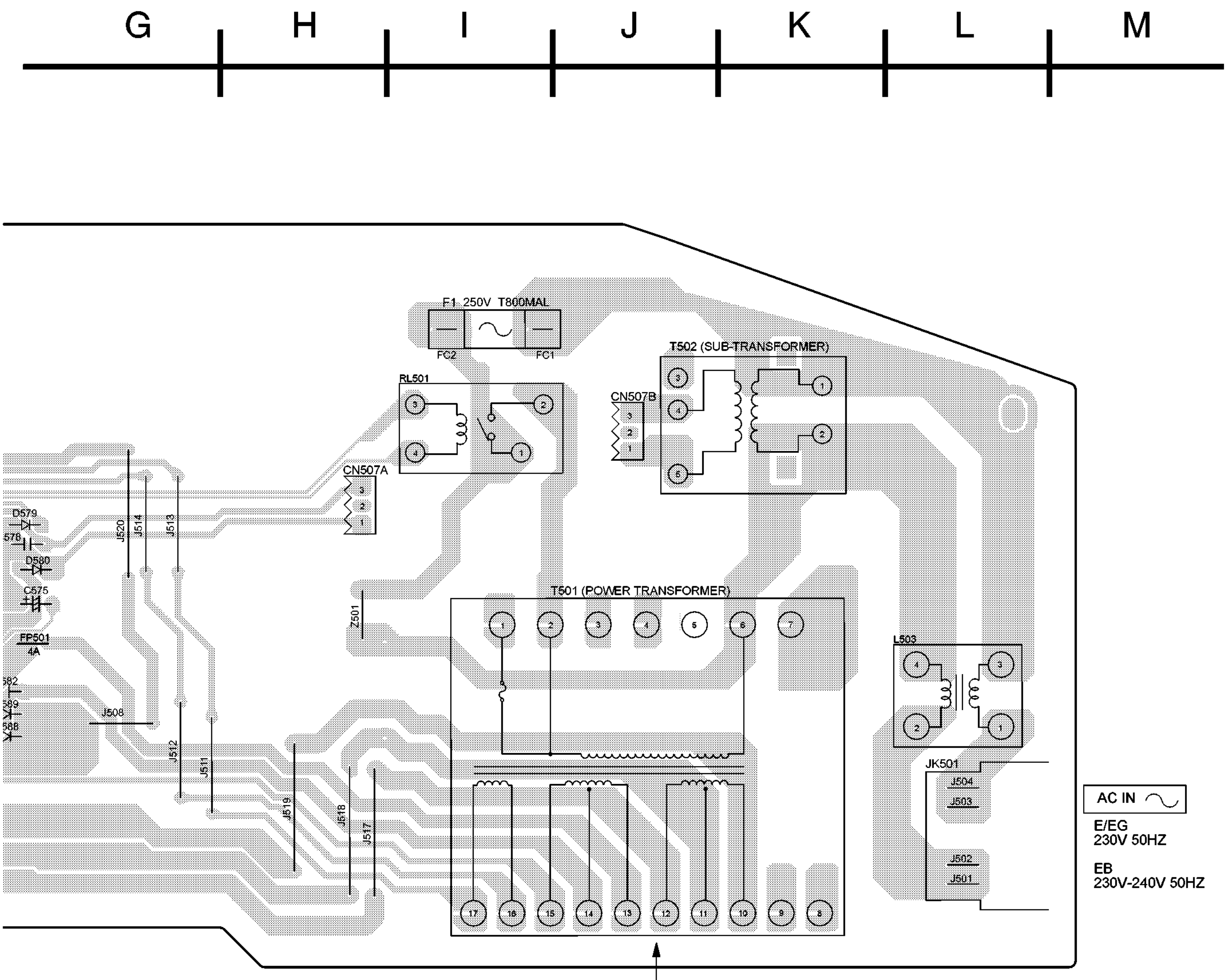


J POWER P.C.B (REPX0357B...E/EG) (REPX0357C...EB)



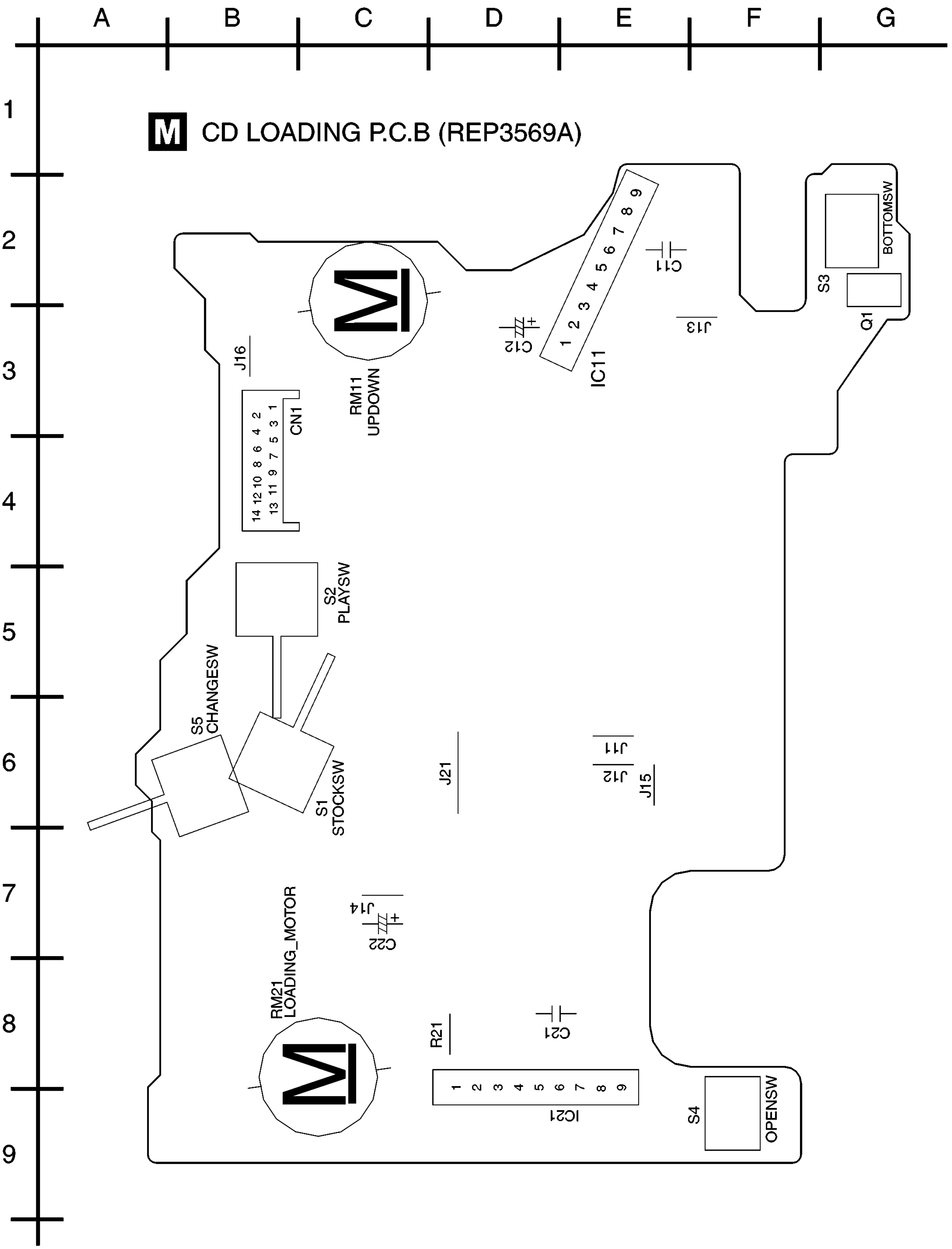
K TRANSFORMER P.C.B (REPX0357B...E/EG) (REPX0357C...EB)



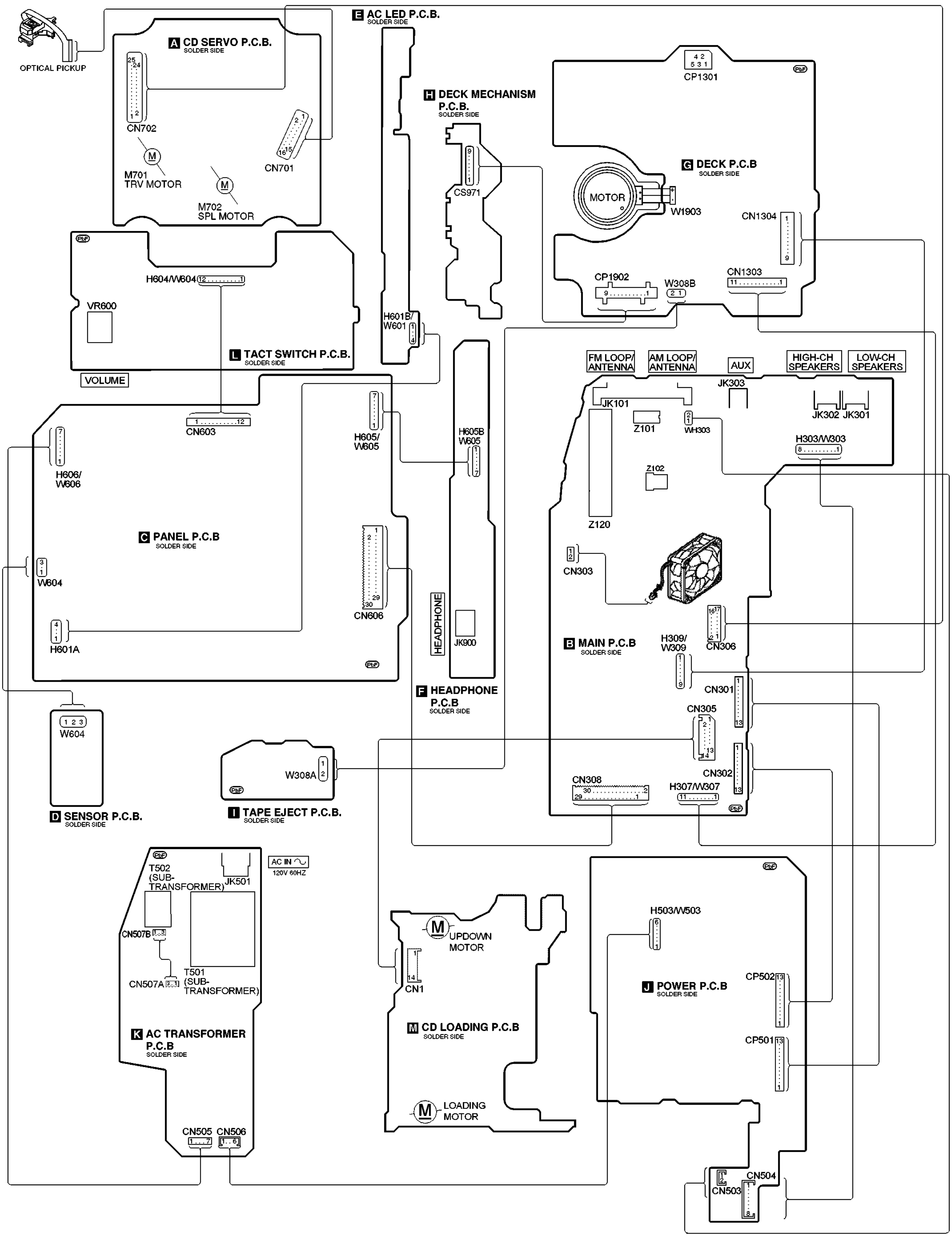


CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE.
PLEASE DO NOT TOUCH THIS P.C.B

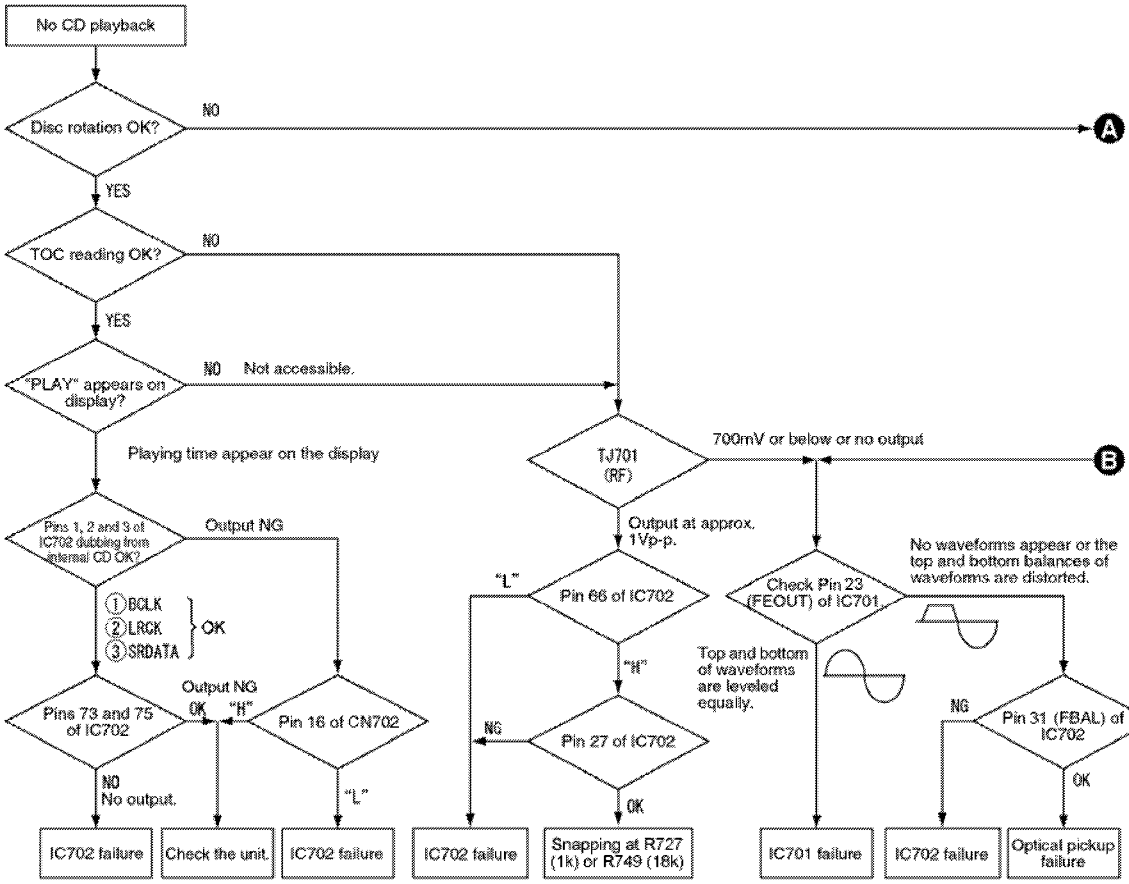
M CD LOADING P.C.B (REP3569A)

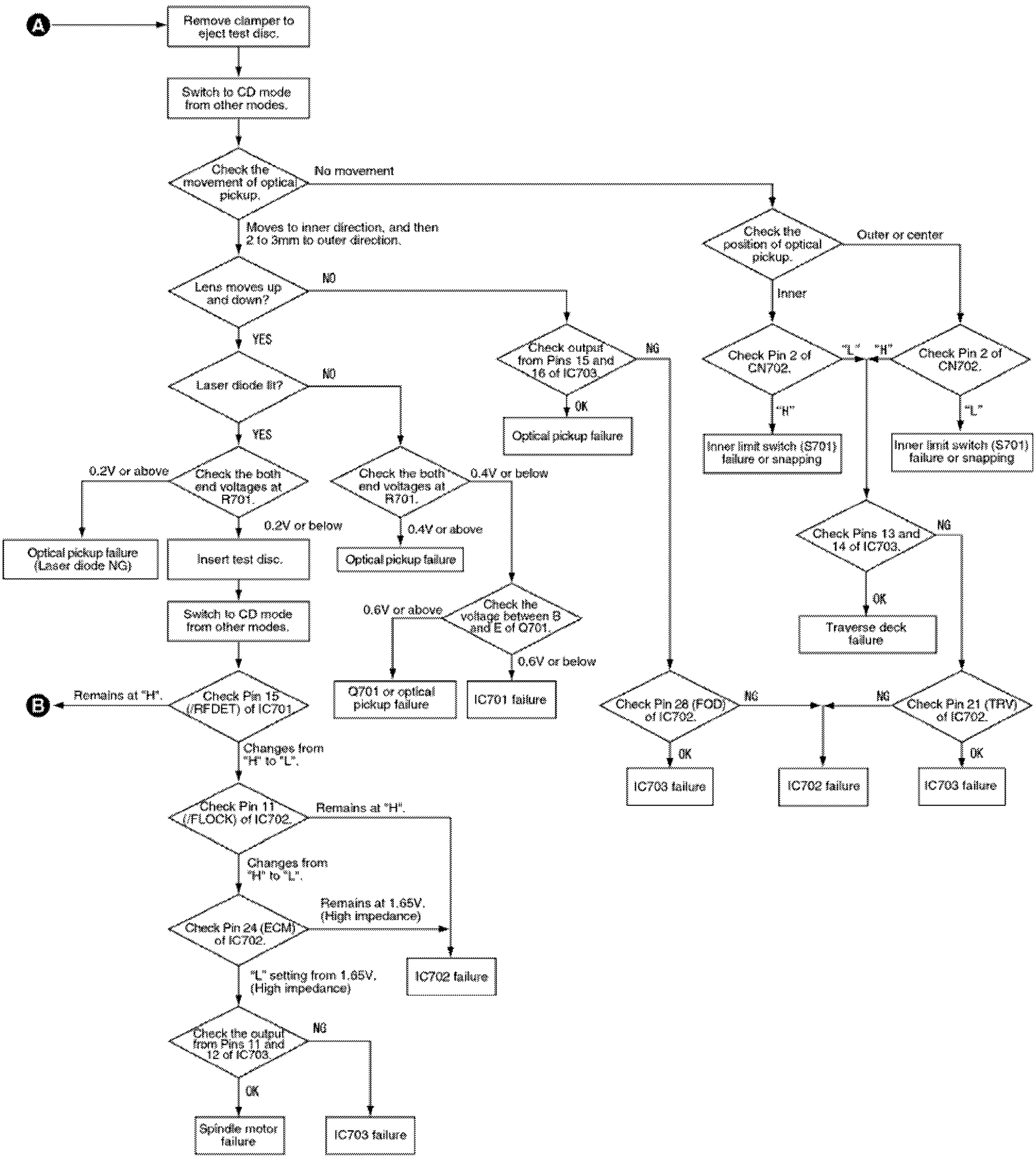


16 Wiring Connection Diagram



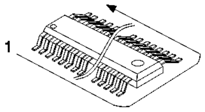
17 Troubleshooting Flowchart (CD Section Circuit)



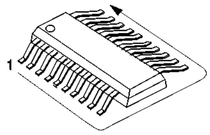

A
Remove clamper to eject test disc.
Switch to CD mode from other modes.
Check the movement of optical pickup.
No movement
Moves to inner direction, and then 2 to 3mm to outer direction.
Lens moves up and down?
NO
YES
Laser diode lit?
NO
YES
Check the both end voltages at R701.
0.2V or above
0.2V or below
Optical pickup failure (Laser diode NG)
Insert test disc.
Switch to CD mode from other modes.
Check Pin 15 (/RFDET) of IC701.
Remains at "H".
B
Changes from "H" to "L".
Check Pin 11 (/FLOCK) of IC702.
Remains at "H".
Changes from "H" to "L".
Check Pin 24 (ECM) of IC702.
Remains at 1.65V. (High impedance)
IC702 failure
"L" setting from 1.65V. (High impedance)
Check the output from Pins 11 and 12 of IC703.
NG
OK
Spindle motor failure
IC703 failure
Check the both end voltages at R701.
0.4V or below
0.4V or above
Optical pickup failure
Check the voltage between B and E of Q701.
0.6V or above
0.6V or below
Q701 or optical pickup failure
IC701 failure
Check output from Pins 15 and 16 of IC703.
NG
OK
Optical pickup failure
Check the position of optical pickup.
Outer or center
Inner
Check Pin 2 of CN702.
"L"
"H"
Inner limit switch (S701) failure or snapping
Check Pin 2 of CN702.
"H"
"L"
Inner limit switch (S701) failure or snapping
Check Pins 13 and 14 of IC703.
NG
OK
Traverse deck failure
Check Pin 28 (FOD) of IC702.
NG
OK
IC703 failure
IC702 failure
Check Pin 21 (TRV) of IC702.
NG
OK
IC703 failure

18 Type Illustrations of ICs, Transistors & Diodes

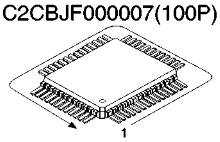
BA5948FPE2 (28P)
AN7326K (26P)



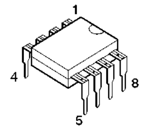
AN22004A-NF (32P)
LA1833NMNTLM (24P)
LC72131MDTRM (20P)
C1BB00000747 (42P)
C3ABMB000027 (24P)
C1BB00000715 (16P)



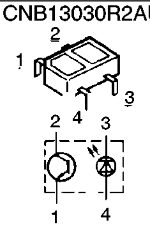
MN6627931BD (80P)
C0HBB0000033 (64P)
C2CBJF000007(100P)



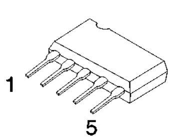
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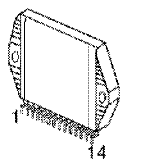
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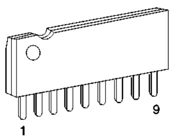
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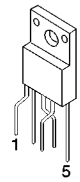
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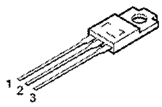
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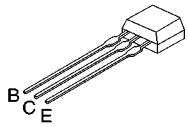
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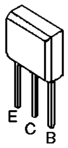
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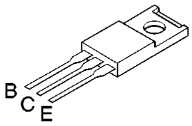
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2SC2058SPTA
2SC2784FTA

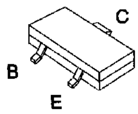


KTA1046
KTC2026

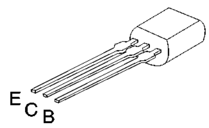


KTC3875GRTA
KRC101STA
KRC102STA
KRC103STA
KRC119STA
2SA1037AKSTX
2SC2412KT96R
2SD2114K1V

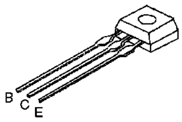
DTA114EKA146
DTA143XKA146
DTC143XKA146
DTC114EKA146



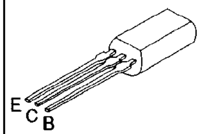
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2SD09650RA
KTA12710YTA
KTA1504GRTA
KTC32030YTA
KTA1267GRTA



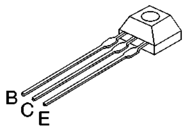
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KTC3199GRTA



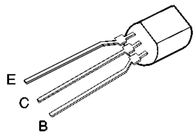
2SC3940ARA



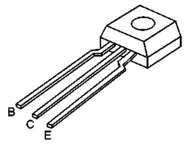
KRA102MTA
KRC102MTA
KRA110MTA



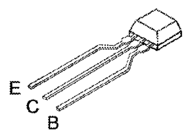
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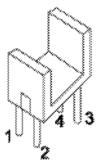
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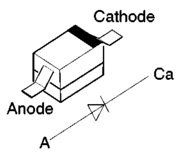
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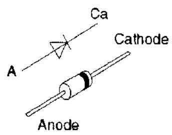
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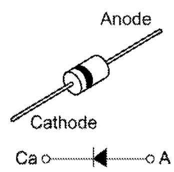
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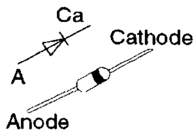
RL1N4003S-P



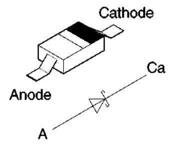
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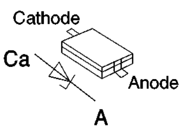
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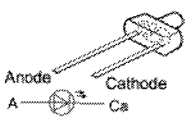
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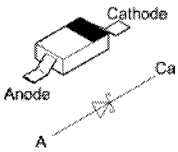
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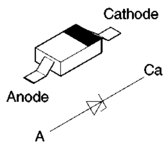
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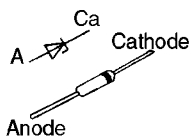
MA729TX



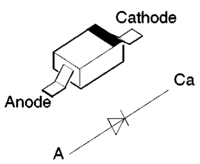
MAZ80560ML



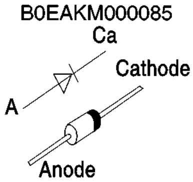
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B0BA9R600002
B0BA6R600008



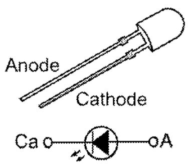
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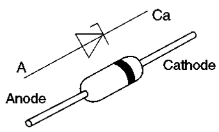
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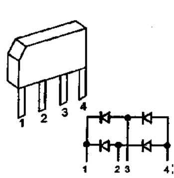
B3AEA0000017



MTZJ15CTA
MTZJ15BTA
MTZJ36DTA



B0EBNL000004



19 Terminal Function of IC's

19.1. IC701 (AN22004A-NF) Servo Amplifier

Pin No.	Mark	I/O	Function
1	LPD	I	APC Amp input terminal
2	LD	O	APC Amp. output terminal
3	VCC	I	Power source terminal
4	EQSW	-	Equalizer switch terminal
5	RFOUT	O	RF summing Amp output terminal
6	RFIN	I	AGC input terminal
7	AGC	-	AGC loop filter connecting capacitor terminal
8	AGC	O	AGC output terminal
9	HPF-AMP	-	HPF Amp connecting capacitor terminal
10	3TOUT	O	3TOUT output terminal
11	HPFDET	-	Detection system's HPF connecting capacitor terminal
12	OFTCNT	-	PFTR detection level adjustment terminal
13	BDO	O	BDO output terminal
14	OFTR	O	OFTR output terminal
15	/RFDET	O	NRFDET output terminal
16	LDON	-	LDON terminal
17	GND	-	Earth terminal
18	EQBST	-	Equalizer boost adjustment terminal
19	VREF	O	VREF output terminal
20	TEN	I	Amp inverting input terminal
21	TEOUT	O	TE amp output terminal
22	FEN	I	Amp inverting input terminal
23	FEOUT	O	FE amp output terminal
24	GCTL	-	GCTL terminal
25	FBAL	I	FBAL control terminal
26	TBAL	I	TBAL control terminal
27	E	O	Tracking signal input terminal 1
28	F	O	Tracking signal input terminal 2
29	D	O	Tracking signal input terminal 4
30	B	O	Tracking signal input terminal 2
31	C	O	Tracking signal input terminal 3
32	A	O	Tracking signal input terminal 1

19.2. IC702 (MN6627931BD) Servo processor/ Digital signal processor/ Digital filter/ D/A converter

Pin No.	Mark	I/O	Function
1	DRVDD	I	Power supply for DRAM interface (Pin 2 to 19 and 80)
2	D0	I/O	DRAM data I/O signal 0
3	D1	I/O	DRAM data I/O signal 1
4	NWE	O	DRAM write enable signal
5	NRAS	O	DRAM RAS control signal
6	D2	I/O	DRAM data I/O signal 2
7	D3	I/O	DRAM data I/O signal 3
8	NCAS0	O	DRAM CAS control signal 0
9	A10 (NCAS1)	O	DRAM CAS control signal 10
10	A8	O	DRAM address signal 8
11	A7	O	DRAM address signal 7
12	A6	O	DRAM address signal 6
13	A5	O	DRAM address signal 5
14	A4	O	DRAM address signal 4
15	A9	O	DRAM address signal 9
16	A0	O	DRAM address signal 0
17	A1	O	DRAM address signal 1
18	A2	O	DRAM address signal 2
19	A3	O	DRAM address signal 3
20	DVSS2	I	Ground for digital circuits
21	DVDD2	I	Power supply for digital circuits
22	SPOUT	O	Spindle motor drive signal output (absolute value output)
23	TRVP	O	Traverse drive output (positive polarity output)
24	TRVM (PC)	O	Traverse drive output (negative polarity output)
25	TRP	O	Tracking drive output (positive polarity output)
26	TRM	O	Tracking drive output (negative polarity output)
27	FOP	O	Focus drive output (positive polarity output)
28	FOM	O	Focus drive output (negative polarity output)
29	IOVDD1	I	Power supply for I/O
30	TBAL	O	Tracking balance adjustment output
31	FBAL	O	Focus balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input (analog input)
35	OFT	I	Off-track signaL input High: Off-track)
36	NRFDET	I	RF detection signal input Low: detection)
37	BDO	I	Dropout signal input High: Dropout
38	LDON	O	Laser ON signal output High: ON
39	ARF	I	RF signal input
40	IREF	I	Reference current input
41	ADPVCC	I	Voltage input for supply voltage monitor (analog input)
42	DSLF	O	DSL loop filter
43	RFSW (DRF)	I	DSL loop filter
44	PLLF	O	PLL loop filter
45	PLLFO	O	PLL loop filter
46	AVDD2	I	Power supply for analog circuits (for DSL, PLL and A/D)
47	AVSS2	I	Ground for analog circuits (for DSL, PLL and A/D)
48	OUTL	O	L-ch audio output
49	AVSS1	I	Ground for analog circuits (for audio output stage)
50	OUTR	O	R-ch audio output
51	AVDD1	I	Power supply for analog circuits (for audio output stage)
52	DVSS3	I	Ground for digital circuits
53	DVDD3	I	Power supply for digital circuit
54	TMOD2	I	Test input pin Low: Normal
55	FLAG	O	Flag signal output
56	EXT2	I/O	Expansion I/O port 2
57	EXT0	I/O	Expansion I/O port 0
58	EXT1	I/O	Expansion I/O port 1

Pin No.	Mark	I/O	Function
59	IOVDD2	I	Power supply for I/O
60	TX	O	Digital audio interface output signal
61	MCLK	I	Micro controller command clock signal input (Latches data at the rising edge)
62	MDATA	I	Micro controller command data signal input
63	MLD	I	Micro controller command load signal input Low: Load
64	BLKCK	O	Subcode block clock signal (f=75 Hz in normal-speed playback mode)
65	PWMSEL	I	PWM output mode selection input Low: Direct High: 3-state
66	SMCK	O	4.2336 MHz/ 8.4672 MHz clock signal output
67	SBCK	I	Clock input for subcode serial output
68	STAT	O	Status signal output
69	NRST	I	Reset input Low: Reset
70	SPPOL	O	Spindle motor drive signal output (polarity output)
71	PMCK	O	88.2-kHz clock signal output
72	DQSY	O	Pack signal output for CD-TEXT data
73	TXTD	O	CD-TEXT data signal output
74	TXTCK	O	External clock signal input for CD-TEXT register
75	NTEST	I	Test input pin High: Normal
76	OUT X2	O	Crystal oscillator circuit output pin (f=16.9355 MHz, 33.8688 MHZ)
77	IN X1	I	Crystal oscillator circuit output pin (f=16.9355 MHz, 33.8688 MHZ)
78	DVSS1	I	Ground for digital circuits
79	DVDD1	I	Power supply for digital circuits
80	MON	O	Monitor for evaluation

19.3. IC703 (BA5948FPE2) Focus coil/ Tracking coil/ Traverse motor/ Spindle motor driver

No.	Mark	I/O	Function
1	IN2	I	Motor Drive (2) input
2	PC2	I	Turntable motor drive signal (:L": ON)
3	IN1	I	Motor driver (1) input
4	PC1	I	Spindle motor On/Off
5	NC	-	N.C.
6	NC	-	N.C.
7	NC	I	N.C.
8	NC	-	N.C.
9	PGND1	-	Ground connection (1) for driver
10	PVCC1	I	Power supply (1) for driver
11	D1-	O	Motor driver (1) reverse-action output
12	D1+	O	Motor driver (1) forward-action output
13	D2-	O	Motor driver (2) reverse-action output
14	D2+	O	Motor driver (2) forward-action output
15	D3-	O	Motor driver (3) reverse-action output
16	D3+	O	Motor driver (3) forward-action output
17	D4-	O	Motor driver (4) reverse-action output
18	D4+	O	Motor driver (4) forward-action output
19	PVCC2	I	Power supply (2) for driver
20	PGND2	-	Ground connection (2) for driver
21	NC	-	N.C.
22	NC	-	N.C.
23	NC	-	N.C.
24	NC	-	N.C.
25	VCC	I	Power supply terminal
26	VREF	I	Reference voltage input
27	IN4	I	Motor driver (4) input
28	IN3	I	Motor driver (3) input

19.4. IC302 (C2CBJF000007) System Microprocessor

Pin No.	Mark	I/O	Function
1	CR16 SWITCH	I	CR16 Detect Switch
2	PLLCK	O	Tuner PLL Clock Output
3	PLLDA	O	Tuner PLL Data Output
4	ST/DO	I	Tuner IF Data/Stereo Input
5	SD	I	Tuner Signal Detect Input
6	MBP1	O	Microcomputer Beat Proof Output 1 (CONTROL)
7	MBP2	O	Microcomputer Beat Proof Output 2 (CONTROL)
8	BYTE	-	External Data Bus Width Select Input (Connect to Ground)
9	CNVss /EFP_CNVss	-	Flash Mode Terminal (Connected To Ground)
10	Xcin	-	32.768 kHz Sub Clock
11	Xcout	-	32.768 kHz Sub Clock
12	/RESET EFP_RESET	-	Reset Input (ACTIVE L)
13	Xout	-	10 MHz Main Clock
14	Vss	-	Ground (0V)
15	Xin	-	10 MHz Main Clock
16	Vcc	-	Power Supply (+5V)
17	/NMI	-	Connect to Vcc (+5V)
18	RMT	I	Remote Control Input
19	BLKCK	I	CD Block Clock Input
20	SYNC	I	AC Failure Detect Input
21	MUTE_H	O	HIC Mute
22	ECHO_CTL1	O	No Connection
23	ECHO_CTR2	O	No Connection
24	ECHO_CTR3	O	No Connection
25	ECHO_MU	O	ECHO MUTE
26	ASP_CLK	O	ASP CLOCK
27	ASP_DAT	O	ASP DATA
28	L_MUTE	O	Mute Level
29	SW_LVL1	O	No Connection
30	SW_LVL2	O	No Connection
31	FL_DOUT /EFP_TxD1	O	Serial Data To FL Driver (Output)

Pin No.	Mark	I/O	Function
32	FL_CS1/ EFP_RxD1	I	FL Driver Chip Select (Master)
33	FL_CLK/ EFP_CLK1	I/O	Serial Clock To FL Driver
34	CHIP _SELECT	O	Chip Select
35	MDATA_OUT	O	CD Command Data Output
36	STATUS	I	CD Servo LSI Status Input
37	MCLK	O	CD Command Clock Output
38	MLD	O	CD Command Load Output
39	/FL_RESET	O	Reset Input (ACTIVE L)
40	MUTE_A	O	Audio Mute
41	EE_CS /EFP_ /EPM	O	EEPROM Chip Select
42	EE_CLK	O	EEPROM CLOCK
43	EE_DAT	I/O	EEPROM DATA
44	RDS_CLK	I	No Connection
45	RDS_DAT	I	No Connection
46	PCONT /EFP_/CE	O	Main Transformer Control Output
47	DCDET	I	DC Detect Input
48	N.C.	-	No Connection
49	REMASTER	O	Remaster Control
50	PLAY_SW	I	Play Switch (CR16)
51	STOCK_SW	I	Stock Switch (CR16)
52	OPEN_SW	I	Open Switch (CR16)
53	POS	I	Position Switch (CR16)
54	BT_SW	I	Bottom Switch (CR16)
55	M1_R	O	Changer Motor 1 Reverse Control
56	M1_F	O	Changer Motor 1 Forward Control
57	M2_R	O	Changer Motor 2 Reverse Control
58	M2_F	O	Changer Motor 2 Forward Control
59	REC	O	When record circuit is operating DURING RECORDING = H
60	KEY_LED	O	LED switch for key tact switch Dimmer ON = L, Dimmer Off = H
61	PHOTO	I	PHOTO (SG mechanism only)
62	Vcc	-	Power Supply (+5V)
63	N.C.	O	No Connection
64	Vss	-	Ground (0V)
65	DMT	O	Deck Mute at mecha transition L = mute OFF, H = mute ON
66	BP1	O	AM beatproof 1 output (L = BP1, H = BP2
67	VMUTE	O	No Connection
68	VMODE	I	No Connection
69	EMPHA	I	No Connection
70	H_RDY	I	No Connection
71	H_INT	I	No Connection
72	V_RST	O	No Connection
73	H_CLK	O	No Connection
74	H_DI	O	No Connection
75	H_DO	I	No Connection
76	H_SEL	O	No Connection
77	N.C.	O	No Connection
78	N.C.	O	No Connection
79	/CD	O	CD POWER CONTROL (Active Low)
80	CD_RST	O	CD Reset Output
81	N.C.	O	No Connection
82	/RESTSW	I	CD Limit Switch Input for the Most inner Point (Active Low)
83	DECK_LED1	O	No Connection
84	DECK_LED2	O	No Connection
85	SSEQ_LED	O	Super Sound EQ LED Control
86	RE_LED	O	MP3/WMA ReMaster LED Control
87	MOTOR	O	MOTOR Control Output L = OFF, H = ON

Pin No.	Mark	I/O	Function
88	PLUNGER	O	Deck PLUNGER Control Output L = OFF, H = ON
89	DECK_AD1	I	DECK AD Input 1
90	DECK_AD2	I	DECK AD Input 2
91	REG1	I	Region Setting 1
92	KEY3	I	KEY3 INPUT
93	KEY2	I	KEY2 INPUT
94	KEY1	I	KEY1 INPUT
95	VOL_JOG	I	Volume JOG
96	AVss	-	Analog Power Supply Input (Connect to GND)
97	N.C.	O	No connection
98	VREF	-	Reference for A-D (5V)
99	AVcc	-	Analog Power Supply Input
100	PLLCE	O	Tuner PLL Chip Enable

20 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

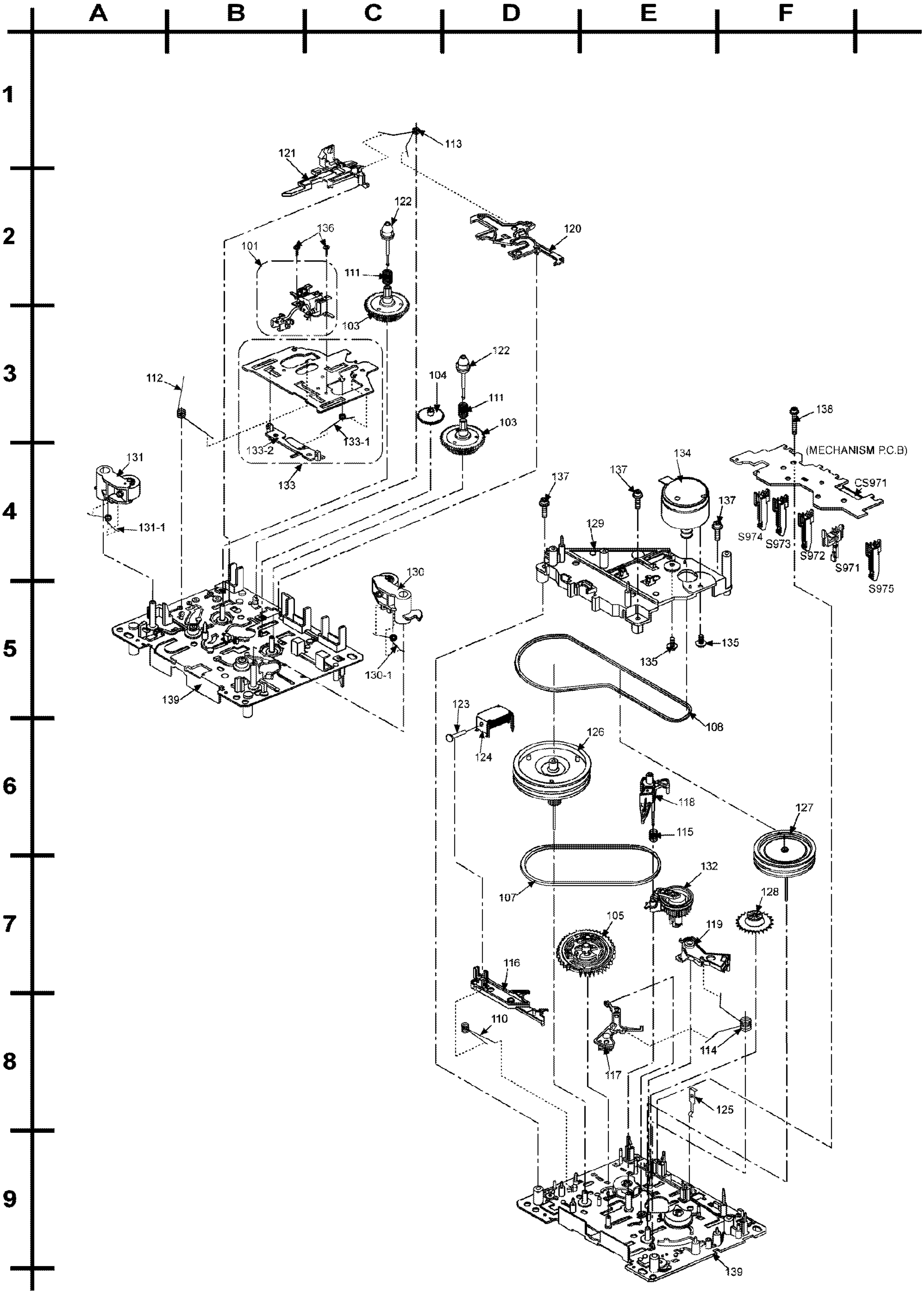
  When replacing any of these components, be sure to use only manufacturers's specified parts shown in the parts list.
- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.)

  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on “Precaution of Laser Diode”.
- Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the lows govening part and product retention. After the end of this period, the assembly will no longer be available.
- [M] indicates in the Remarks columns indicates parts that are supplied by **PAVCSG**.
- The “(SF)” mark denotes the standard part.
- Reference for O/I book languages are as follows :

Ar : Arabic	Cf : Canadian French	Cz : Czech	Da : Danish
Du : Dutch	En : English	Fr : French	Ge : German
It : Italian	Ko : Korean	Po : Polish	Su : Russian
Sp : Spanish	Sw : Swedish	Co : Traditional Chinese	Cn : Simplified Chinese

20.1. Deck Mechanism (RAA4402-S)

20.1.1. Deck Mechanism Parts Location

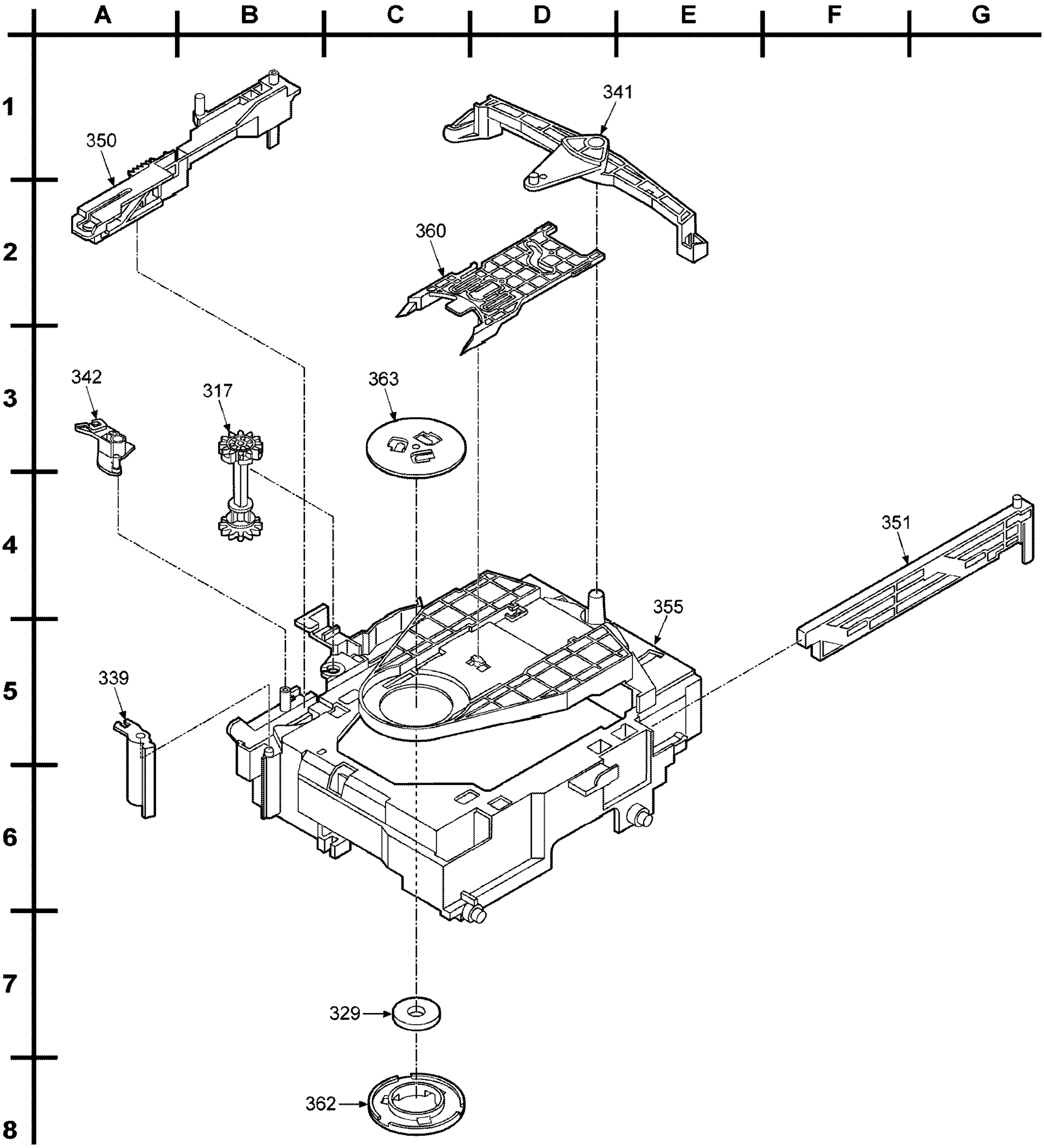


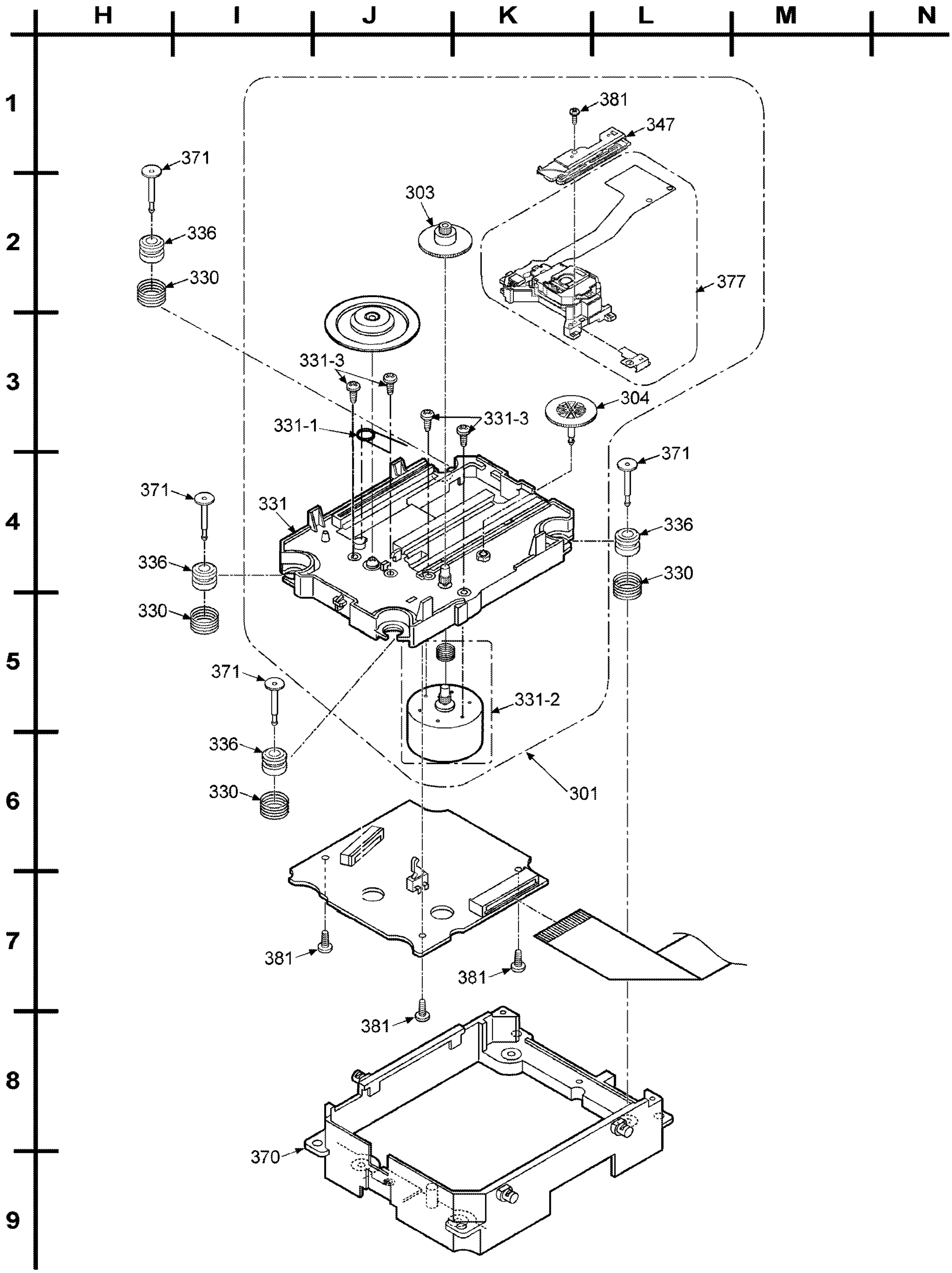
20.1.2. Deck Mechanism Parts List

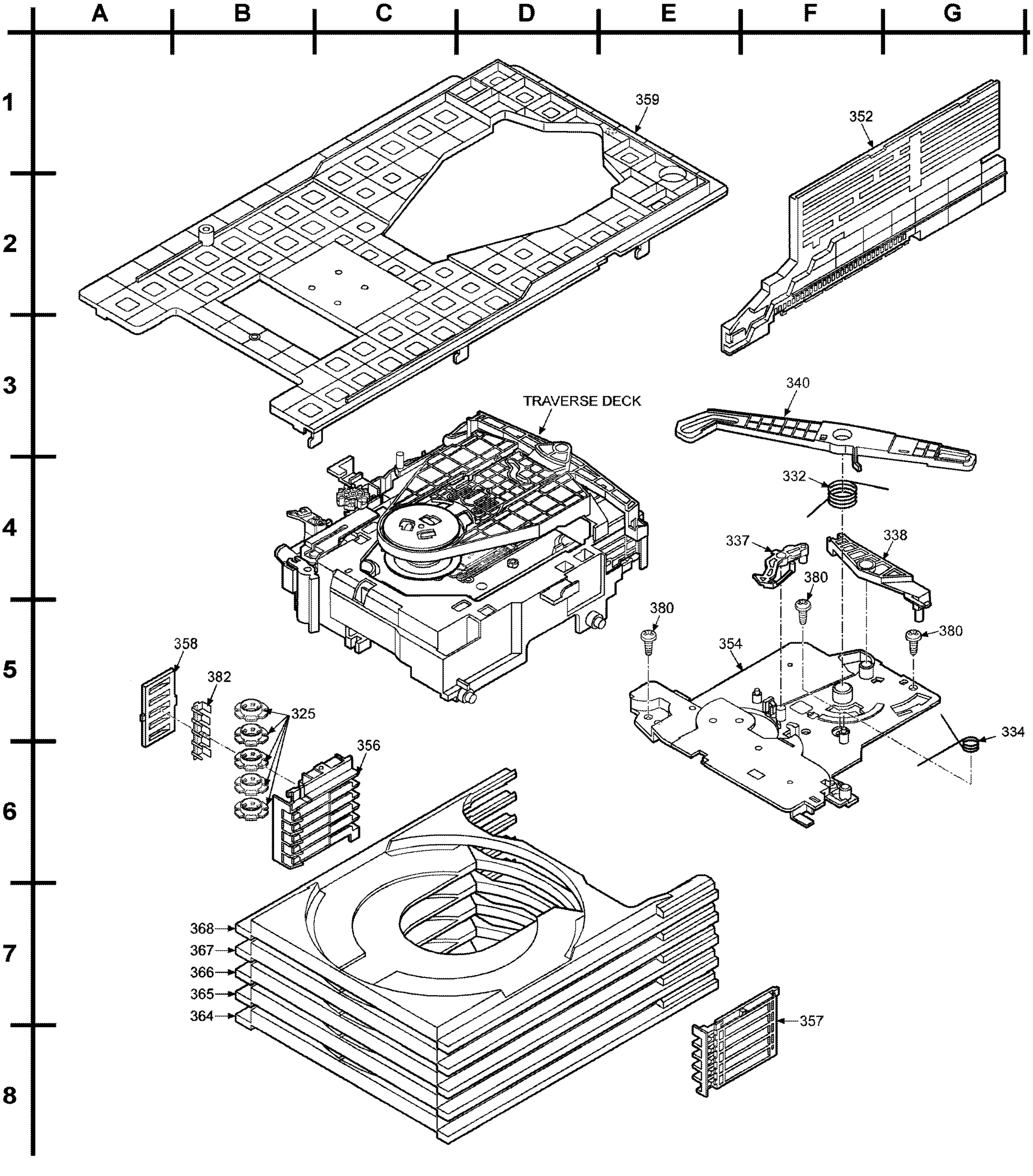
Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0071	R/P HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-1	CAPSTAN BELT A	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SPRING	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0061	FLYWHEEL F ASSY	[M]
127	RXF0062	FLYWHEEL R ASSY	[M]
128	RXG0040	FF RELAY GEAR ASSY	[M]
129	RMK0283A-J	SUB-CHASSIS	[M]
130	RXL0124	PINCH ROLLER F ASSY	[M]
130-1	RMB0401	PINCH ARM SPRING F	[M]
131	RXL0125	PINCH ROLLER R ASSY	[M]
131-1	RMB0402	PINCH ARM SPRING R	[M]
132	RXL0126	WINDING ARM ASSY	[M]
133	RXQ0412	HEAD PANEL ASSY	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0098	CAP MOTOR ASSY	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCREW	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJSTR280PP	MAIN CHASSIS ASS'Y	[M]

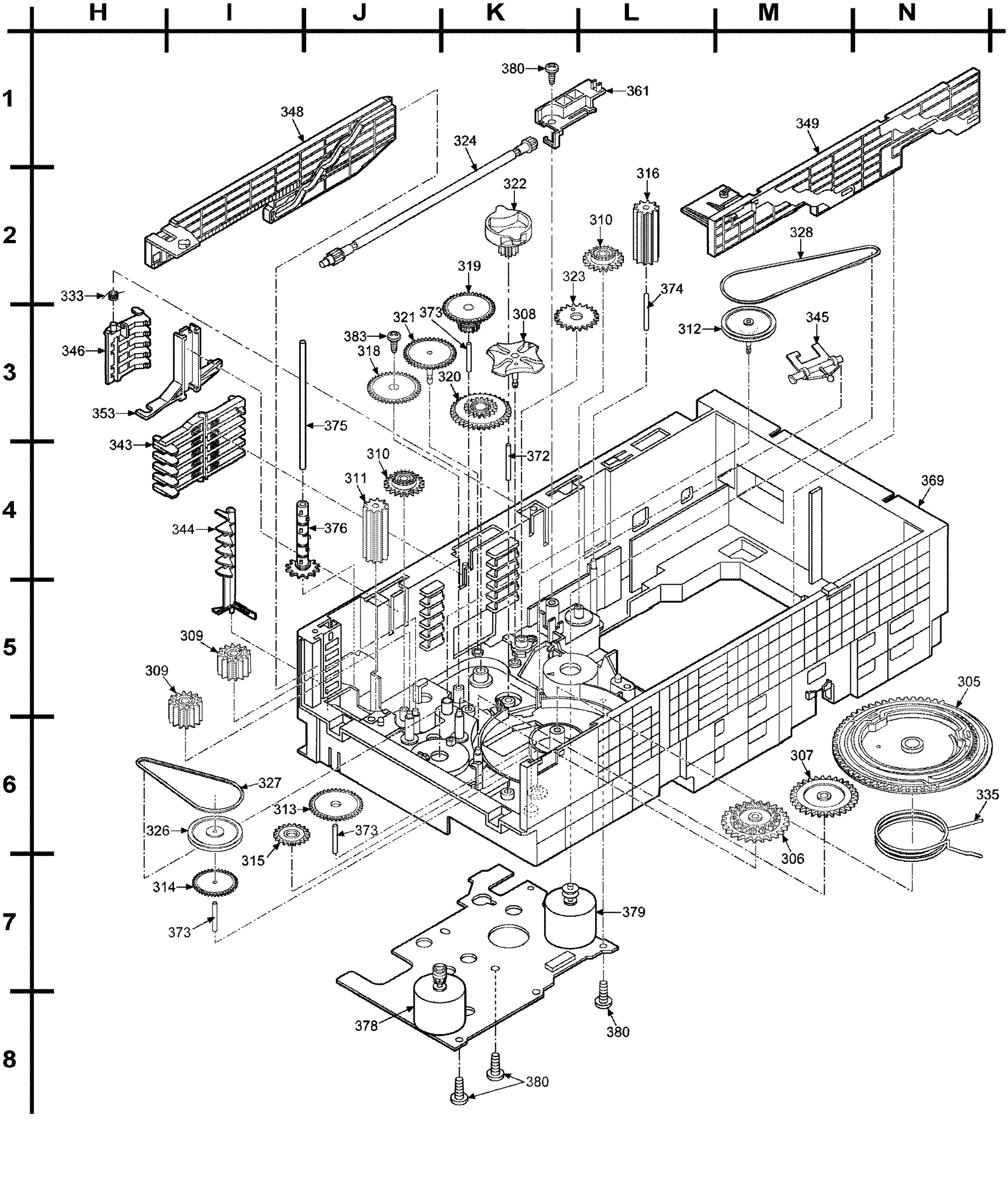
20.2. CD Loading Mechanism

20.2.1. CD Loading Mechanism Parts Location




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TRAVERSE DECK
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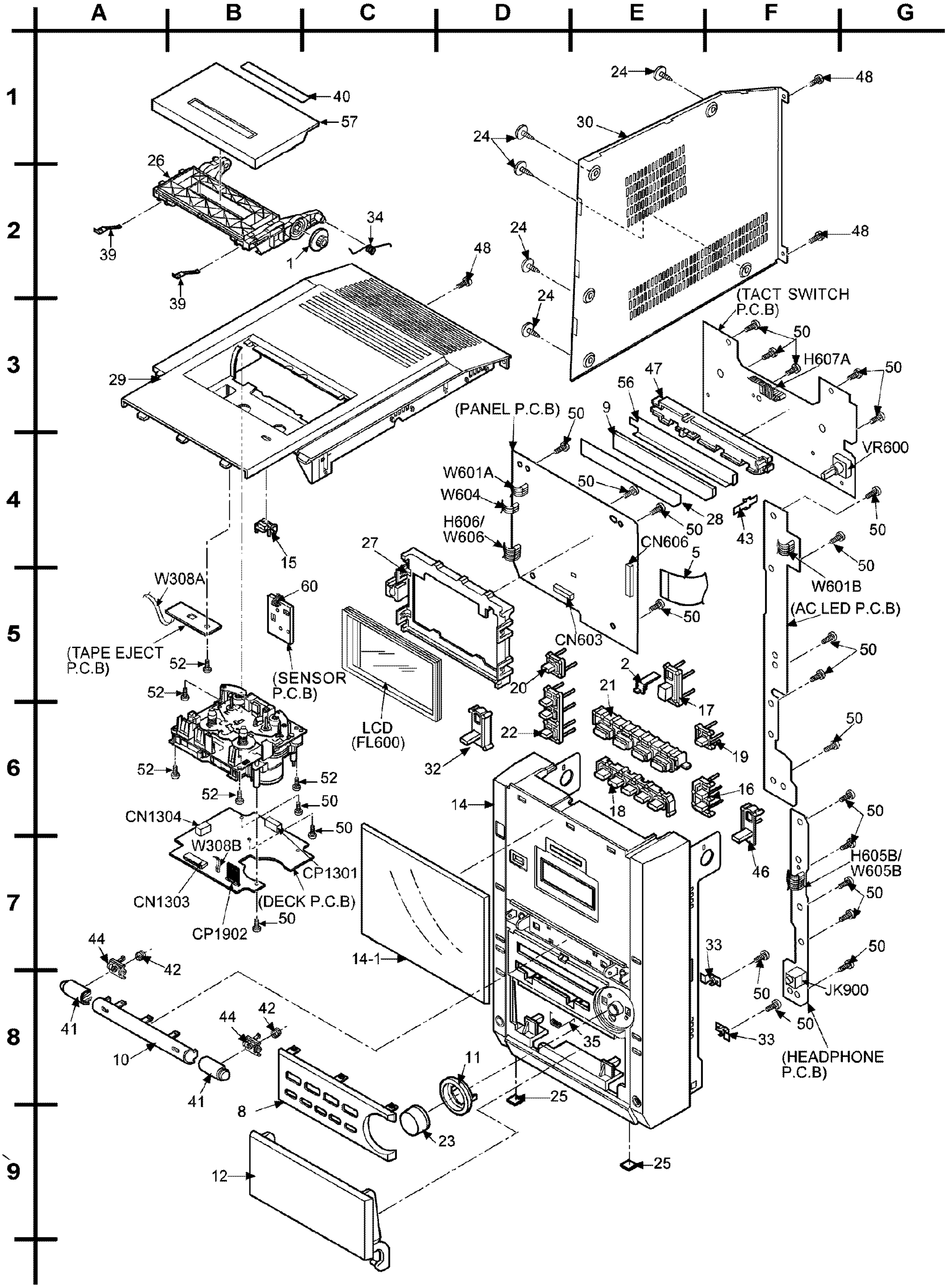

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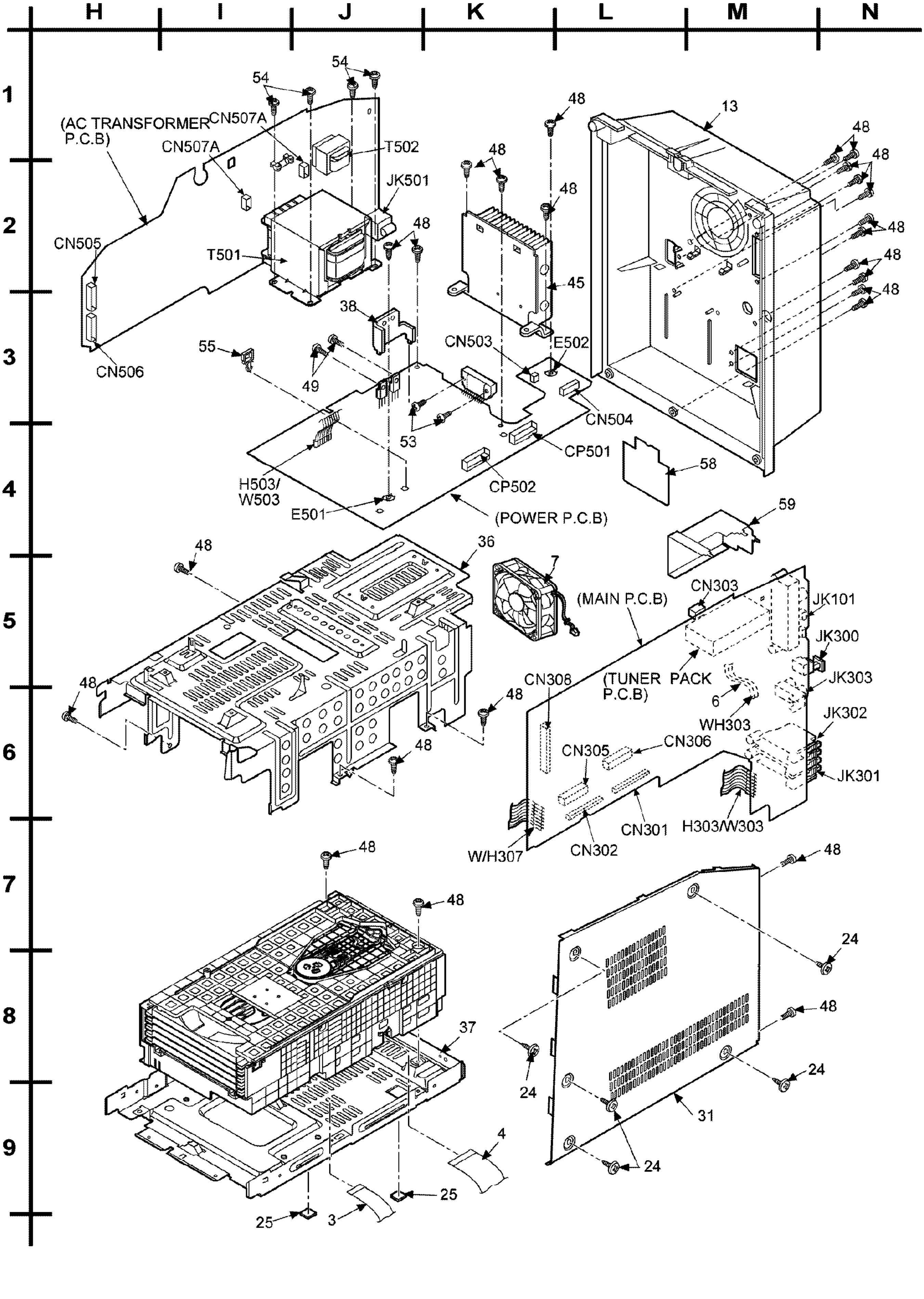
20.2.2. CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RAE0157A-V	TRV UNIT WITHOUT SERVO	[M]
303	RDG0455	TRV GEAR (A)	[M]
304	RDG0456	TRV GEAR (B)	[M]
305	RDG0519	MAIN GEAR	[M]
306	RDG0520	SPEED UP GEAR	[M]
307	RDG0521	REVERSE GEAR	[M]
308	RDG0522	GENEVA GEAR	[M]
309	RDG0523	HOR RELAY GEAR	[M]
310	RDG0525	CROWN GEAR	[M]
311	RDG0526	TRAY RELAY GEAR	[M]
312	RDG0527	UD PULLEY GEAR	[M]
313	RDG0528	HOR SPEED DOWN GEAR	[M]
314	RDG0529	HOR SPEED DOWN GEAR	[M]
315	RDG0530	HOR DRIVE GEAR	[M]
316	RDG0531	LOAD RELAY GEAR	[M]
317	RDG0532	LOAD GEAR	[M]
318	RDG0534	UD SPEED DOWN GEAR	[M]
319	RDG0535	UD SPEED DOWN GEAR	[M]
320	RDG0536	SELECT SPEED DOWN GEAR	[M]
321	RDG0537	SELECT DRIVE GEAR	[M]
322	RDG0538	CHANGE GEAR	[M]
323	RDG0539	UD DRIVE GEAR	[M]
324	RDG0540	TIMING GEAR	[M]
325	RDG0542	TRAY GEAR	[M]
326	RDG0543	HOR PULLEY GEAR	[M]
327	RDV0068	HOR BELT	[M]
328	RDV0069	UD BELT	[M]
329	RHM0001	MAGNET	[M]
330	RME0109	FLOATING SPRING	[M]
331	RFKNCT101	TRAVERSE UNIT ASS'Y	[M]
331-1	RME0369	PRESS SPRING	[M]
331-2	RXQ0632	TRV MOTOR UNIT	[M]
331-3	XQN17+C28F	SCREW	[M]
332	RME0344	UD ASSIST SPRING	[M]
333	RME0361	TRAY STOPPER SPRING	[M]
334	RME0363	LIMIT SPRING	[M]
335	RME0368	MAIN GEAR SPRING	[M]
336	RMG0563-T	FLOATING RUBBER	[M]
337	RML0616	SPEED UP LOCK	[M]
338	RML0617	SEPARATE LEVER 1	[M]
339	RML0618	SEPARATE LEVER 2	[M]
340	RML0619-1	UD. CONNECTION LEVER	[M]
341	RML0620	TRV.CONNECT LEVER	[M]
342	RML0621	TRAY CHG. LEVER	[M]
343	RML0622	TRAY LOCK LEVER	[M]
344	RML0623	OPEN SW. LEVER	[M]
345	RML0624	CHG. LEVER	[M]
346	RML0637	TRAY STOPPER	[M]
347	RMM0218	TRV DRIVE RACK	[M]
348	RMM0239	UD.RACK [L]	[M]
349	RMM0240	UD.RACK [R]	[M]
350	RMM0241	TRV.SLIDE PLATE [L]	[M]
351	RMM0242	TRV.SLIDE PLATE [R]	[M]
352	RMM0243	SELECT RACK	[M]
353	RMM0244	SELECT GUIDE	[M]
354	RMQ1051	PITCH PLATE	[M]
355	RMQ1052	UD BASE	[M]
356	RMQ1056	TRAY GUIDE [L]	[M]
357	RMQ1057	TRAY GUIDE [R]	[M]
358	RMQ1058	GEAR HOLDER	[M]
359	RMQ1059	TOP COVER	[M]
360	RMQ1060	CLAMP GUIDE	[M]
361	RMQ1061	TG.PLATE	[M]
362	RMR0334	FIXTURE	[M]
363	RMR0624-W5	CLAMPER	[M]
364	RMR1407A-H1	TRAY NO. 1	[M]
365	RMR1407B-H1	TRAY NO. 2	[M]
366	RMR1407C-H1	TRAY NO. 3	[M]
367	RMR1407D-H1	TRAY NO. 4	[M]
368	RMR1407E-H1	TRAY NO. 5	[M]
369	RMR1408-K	MECHA BASE	[M]
370	RMR1427-X	MIDDLE CHASSIS	[M]
371	RMS0757-1	FIXED PIN	[M]
372	RMS0758	CHANGE GEAR SHAFT	[M]
373	RMS0759	UD SPEED DOWN GEAR	[M]
374	RMS0760	LOAD RELAY GEAR SHAFT	[M]
375	RMS0762	TRAY GEAR SHAFT	[M]
376	RXG0053	TRAY DRIVE GEAR ASSY	[M]
377	RXQ0999	OPU UNIT	[M]
378	RXQ0803	LOADING MOTOR ASSY	[M]
379	RXQ0804	UD MOTOR ASSY	[M]
380	XTB3+10J	SCREW	[M]
381	XTN2+6G	SCREW	[M]
382	RMC0472	TRAY SPRING	[M]
383	XTBS26+8J	SCREW	[M]

20.3. Cabinet

20.3.1. Cabinet Parts Location





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(AC TRANSFORMER P.C.B)
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CN507A
T502
JK501
T501
CN505
CN506
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CN503
E502
CN504
CP501
CP502
45
H503/ W503
E501
(POWER P.C.B)
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59
36
7
(MAIN P.C.B)
CN303
JK101
JK300
JK303
JK302
JK301
(TUNER PACK P.C.B)
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WH303
CN308
CN305
CN306
CN301
CN302
H303/W303
W/H307
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20.3.2. Cabinet & CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RDG0357	DAMPER GEAR	[M]
2	RDLX0003-Q	POWER LENS	[M]
3	REEX0166	14P FFC WIRE	[M]
4	REEX0271	17P FFCC	[M]
5	REEX0272	30P FFC	[M]
6	REXX0369	2P FLAT WIRE	[M]
7	REM0094	COOLING FAN	[M]
8	RFKHAPM28PCS	CENTER ORN. ASS'Y	[M]
9	RDLX0007-Q	FUNC. LIGHTING PIECE	[M]
10	RGKX0202-S	JOG ORNAMENT	[M]
11	RGKX0175-S	VOLUME ORNAMENT	[M]
12	RFKLAPM28PCS	CD LID ASS'Y	[M]
13	RKSX0050H-H	REAR CABINET	[M] E
13	RKSX0050J-H	REAR CABINET	[M] EB
13	RKSX0050Q-H	REAR CABINET	[M] EG
14	RFKGAPM28EBS	FRONT CABINET ASS'Y	[M]
14-1	RGP1015A-S	FL WINDOW	[M]
15	RGUX0497-S	DECK EJECT BUTTON	[M]
16	RGUX0498-S	CD EJECT BUTTON	[M]
17	RGUX0499-S	POWER BUTTON	[M]
18	RGUX0500-S	ALL DISC BUTTON	[M]
19	RGUX0501-S	RECORD BUTTON	[M]
20	RGUX0502-S	AUX BUTTON	[M]
21	RYQX0092A-S	FUNCTION BUTTON UNIT	[M]
22	RGUX0505-S	CD MANAGER BUTTON	[M]
23	RGWX0079-S	VOLUME KNOB	[M]
24	RHD30007-1S	SCREW	[M]
25	RHGV0008	LEG CUSHION	[M]
26	RKF0479-1H	CASS HOLDER	[M]
27	RMNX0107	FL HOLDER	[M]
28	RGLX0075	LIGHT. PIECE DIFF.	[M]
29	RKMX0083A-S	TOP CABINET	[M]
30	RKMX0084-S	SIDE PANEL (LEFT)	[M]
31	RKMX0085-S	SIDE PANEL (RIGHT)	[M]
32	RYQX0091-S	REMASTER BUTTON UNIT	[M]
33	RMA1543	CD LID SUPPORT	[M]
34	RMBX0029	CASS OPEN SPRING	[M]
35	RMEX0020	CD LID OPEN SPRING	[M]
36	RMKX0070	INNER CHASSIS	[M]
37	RMKX0071	BOTTOM CHASSIS	[M]
38	RMY0260	HEAT SINK (SMALL)	[M]
39	RUS757ZAA	CASS HALF SPRING	[M]
40	RGPX0105A-S	CASSETTE LID PANEL	[M]
41	RGUX0524-S	JOG BUTTON	[M]
42	RMBX0025	RETURN SPRING	[M]
43	RMCX0025	GROUND SPRING	[M]
44	RMNX0103	JOG CHASSIS	[M]
45	RXXX0043	HEAT SINK UNIT	[M]
46	RYQX0083-S	S. SEQ UNIT	[M]
47	RMNX0106	FUNCTION LIGHTING PIECE	[M]
48	XTB3+10JFZ	SCREW	[M]
49	XTB3+8JFZ	SCREW	[M]
50	XTBS26+10J	SCREW	[M]
52	XTV3+10G-M	SCREW	[M]
53	XTW3+15T	SCREW	[M]
54	XTWS3+6T	SCREW	[M]
55	RMR1350-K	WIRE CLIP	[M]
56	RMVX0074	LIGHTING PIECE COVER	[M]
57	RKFX0111-S	CASS. LID	[M]
58	RSCX0079-1	REAR SHIELD PLATE	[M]
59	RSCX0071	TUNER PACK SHIELD	[M]
60	RWJ1103070XX	3P WIRE REMOTE SENSOR	[M]

20.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARD	
	REPX0363A	CD SERVO P.C.B (SIDE A)	[M] (RTL)
	REPX0363A	CD SERVO P.C.B (SIDE B)	[M] (RTL)
	REPX0358B	MAIN P.C.B	[M] (RTL)
	REPX0358B	PANEL P.C.B	[M] (RTL)
	REPX0358B	SENSOR P.C.B	[M] (RTL)
	REPX0358B	AC LED P.C.B	[M] (RTL)
	REPX0358B	HEADPHONE P.C.B	[M] (RTL)
	REPX0350B	DECK P.C.B	[M] (RTL)
	REPX0321C	DECK MECHANISM P.C.B	[M] (RTL)
	REPX0350B	TAPE EJECT P.C.B	[M] (RTL)
	REPX0357B	POWER P.C.B	[M] (RTL)E/ EG
	REPX0357C	POWER P.C.B	[M] (RTL)EB
	REPX0357B	TRANSFORMER P.C.B	[M] (RTL)E/ EG
	REPX0357C	TRANSFORMER P.C.B	[M] (RTL)EB
	REPX0358B	TACT SWITCH P.C.B	[M] (RTL)
	REPX3569A	CD LOADING P.C.B	[M] (RTL)
		INTEGRATED CIRCUITS	
IC11	C0GAG0000007	IC DRIVER	[M]
IC21	C0GAG0000007	IC DRIVER	[M]
IC101	LA1833NMNTLM	IC IF & MPX	[M]
IC102	LC72131MDTRM	IC PLL	[M]
IC300	C1BB00000747	IC ASP	[M]
IC302	C2CBJF000007	IC MICRO-P	[M]
IC304	C1BB00000715	IC RDS	[M]
IC500	RSN314H41A-P	IC POWER AMP HIC	[M]
IC501	C0AABB000117	IC OP-AMP (HP AMP)	[M]
IC502	C0DAAHG00007	IC SWITCHING REGULAR	[M]
IC503	C0CAABE00006	IC	[M]
IC600	C0HBB0000033	IC FL DRIVER	[M]
IC701	AN22004A-NF	IC HEAD AMP	[M]
IC702	MN6627931BD	IC LSI	[M]
IC703	BA5948FPE2	IC 4 CH DRIVE	[M]
IC704	C3ABMB000027	IC 16M DRAM	[M]
IC971	CNB13030R2AU	IC PHOTO INTERUPTOR	[M]
IC1000	C1AA00000612	IC ANALOG SW	[M]
IC1001	AN7326K	IC DECK R/P	[M]
		TRANSISTORS	
Q1	B3NAA0000068	TRANSISTOR	[M]
Q101	2SC2058SPTA	TRANSISTOR	[M]
Q102	2SC2058SPTA	TRANSISTOR	[M]
Q106	KRA102MTA	TRANSISTOR	[M]
Q110	2SC3311ARTA	TRANSISTOR	[M]
Q301	KTA1504GRTA	TRANSISTOR	[M]
Q302	KRC102STA	TRANSISTOR	[M]
Q303	KTA1504GRTA	TRANSISTOR	[M]
Q304	KRC101STA	TRANSISTOR	[M]
Q305	KRC101STA	TRANSISTOR	[M]
Q306	KRC103STA	TRANSISTOR	[M]
Q307	KTC3875GRTA	TRANSISTOR	[M]
Q308	KTC3875GRTA	TRANSISTOR	[M]
Q309	KRC101STA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q310	KRC101STA	TRANSISTOR	[M]
Q501	KTC2026	TRANSISTOR	[M]
Q502	KTA1046	TRANSISTOR	[M]
Q505	KTA1267GRTA	TRANSISTOR	[M]
Q506	KTA1046	TRANSISTOR	[M]
Q508	KTC3199GRTA	TRANSISTOR	[M]
Q509	KRA110MTA	TRANSISTOR	[M]
Q514	2SD0592ARA	TRANSISTOR	[M]
Q515	KTC3199GRTA	TRANSISTOR	[M]
Q516	KTC3199GRTA	TRANSISTOR	[M]
Q517	KTC32030YTA	TRANSISTOR	[M]
Q519	B1AAGC000006	TRANSISTOR	[M]
Q575	B1AAGC000006	TRANSISTOR	[M]
Q577	2SC3940ARA	TRANSISTOR	[M]
Q578	KRC102MTA	TRANSISTOR	[M]
Q579	2SB0621AHA	TRANSISTOR	[M]
Q600	KRC119STA	TRANSISTOR	[M]
Q601	KRC119STA	TRANSISTOR	[M]
Q602	KRC119STA	TRANSISTOR	[M]
Q700	B1AACF000063	TRANSISTOR	[M]
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q701	KTA12710YTA	TRANSISTOR	[M]
Q702	B1AACF000063	TRANSISTOR	[M]
Q703	B1AACF000063	TRANSISTOR	[M]
Q704	KRA102MTA	TRANSISTOR	[M]
Q705	KRC102MTA	TRANSISTOR	[M]
Q710	B1AAGC000006	TRANSISTOR	[M]
Q711	B1AAGC000006	TRANSISTOR	[M]
Q712	B1AAGC000006	TRANSISTOR	[M]
Q713	B1AAGC000006	TRANSISTOR	[M]
Q714	KTC3199GRTA	TRANSISTOR	[M]
Q715	KTC3199GRTA	TRANSISTOR	[M]
Q716	KTC3199GRTA	TRANSISTOR	[M]
Q717	KTC3199GRTA	TRANSISTOR	[M]
Q718	B1AAGC000006	TRANSISTOR	[M]
Q719	B1AAGC000006	TRANSISTOR	[M]
Q720	KTC3199GRTA	TRANSISTOR	[M]
Q721	KTC3199GRTA	TRANSISTOR	[M]
Q1101	2SD2114K1V	TRANSISTOR	[M]
Q1201	2SD2114K1V	TRANSISTOR	[M]
Q1302	DTA114EKA146	TRANSISTOR	[M]
Q1303	DTC143XKA146	TRANSISTOR	[M]
Q1304	DTA143XKA146	TRANSISTOR	[M]
Q1305	DTC114EKA146	TRANSISTOR	[M]
Q1306	2SC2412KT96R	TRANSISTOR	[M]
Q1307	2SC2412KT96R	TRANSISTOR	[M]
Q1309	B1AAGC000006	TRANSISTOR	[M]
Q1310	B1AAGC000006	TRANSISTOR	[M]
Q1312	2SC2412KT96R	TRANSISTOR	[M]
Q1313	2SC2784FTA	TRANSISTOR	[M]
Q1314	DTA143XKA146	TRANSISTOR	[M]
Q1315	KTA12710YTA	TRANSISTOR	[M]
Q1316	2SD09650RA	TRANSISTOR	[M]
Q1317	2SD2114K1V	TRANSISTOR	[M]
		DIODES	
D101	UDZSTE175R1B	DIODE	[M]
D300	RL1N4003S-P	DIODE	[M]
D301	RL1N4003S-P	DIODE	[M]
D302	1SS380TE-17	DIODE	[M]
D303	1SS380TE-17	DIODE	[M]
D304	MA729TX	DIODE	[M]
D305	B0ACCK000005	DIODE	[M]
D500	B0EBNL000004	DIODE	[M]
D505	B0AACK000004	DIODE	[M]
D508	MTZJ15BTA	DIODE	[M]
D515	B0BA9R600002	DIODE	[M]
D517	B0BA5R600016	DIODE	[M]
D520	B0BA9R600002	DIODE	[M]
D524	MTZJ15CTA	DIODE	[M]
D525	B0AACK000004	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D526	B0AACK000004	DIODE	[M]
D527	B0AACK000004	DIODE	[M]
D530	B0AACK000004	DIODE	[M]
D539	RL1N4003S-P	DIODE	[M]
D540	RL1N4003S-P	DIODE	[M]
D541	RL1N4003S-P	DIODE	[M]
D578	RL1N4003S-P	DIODE	[M]
D579	RL1N4003S-P	DIODE	[M]
D580	RL1N4003S-P	DIODE	[M]
D581	RL1N4003S-P	DIODE	[M]
D582	B0BA6R600008	DIODE	[M]
D584	RL1N4003S-P	DIODE	[M]
D585	RL1N4003S-P	DIODE	[M]
D586	RL1N4003S-P	DIODE	[M]
D587	RL1N4003S-P	DIODE	[M]
D588	RL1N4003S-P	DIODE	[M]
D589	RL1N4003S-P	DIODE	[M]
D592	RL1N4003S-P	DIODE	[M]
D593	RL1N4003S-P	DIODE	[M]
D594	MTZJ36DTA	DIODE	[M]
D600	UDZSTE176R8B	DIODE	[M]
D601	LNJ801TPSJA	DIODE	[M]
D602	LNJ801TPSJA	DIODE	[M]
D609	B3AAA0000583	DIODE	[M]
D612	B3AEA0000017	DIODE	[M]
D700	B0AACK000004	DIODE	[M]
D701	B0AACK000004	DIODE	[M]
D702	B0AACK000004	DIODE	[M]
D703	B0AACK000004	DIODE	[M]
D704	B0AACK000004	DIODE	[M]
D705	B0AACK000004	DIODE	[M]
D706	B0AACK000004	DIODE	[M]
D707	B0AACK000004	DIODE	[M]
D708	MA2C16500E	DIODE	[M]
D709	MA2C16500E	DIODE	[M]
D710	B0JAME000057	DIODE	[M]
D743	1D3E	DIODE	[M] EG E
D743	B0EAKM000085	DIODE	[M] EB
D750	MAZ80560ML	DIODE	[M]
D803	RL1N4003S-P	DIODE	[M]
D971	MA2C16500E	DIODE	[M]
D1301	B0ACCK000005	DIODE	[M]
		VARIABLE RESISTORS	
VR600	EVEJ1CF2524B	VOLUME ENCODER	[M]
		SWITCHES	
S1	K0L1BA000065	SW	[M]
S2	K0L1BA000065	SW	[M]
S3	K0L1BA000070	SW	[M]
S4	RSH1A045-1A	SW TRIGGER	[M]
S5	K0L1BA000065	SW	[M]
S601	EVQ21405RJ	SW CD 1	[M]
S602	EVQ21405RJ	SW CD 2 (TAPE EJECT)	[M]
S603	EVQ21405RJ	SW CD 3	[M]
S604	EVQ21405RJ	SW CD 4	[M]
S605	EVQ21405RJ	SW CD 5	[M]
S606	EVQ21405RJ	SW CD PLAY/PAUSE	[M]
S607	EVQ21405RJ	SW TAPE PLAY	[M]
S608	EVQ21405RJ	SW TUNER/BAND	[M]
S609	EVQ21405RJ	SW TRACK UP	[M]
S610	EVQ21405RJ	SW TRACK DOWN	[M]
S611	EVQ21405RJ	SW ALBUM UP	[M]
S612	EVQ21405RJ	SW ALBUM DOWN	[M]
S613	EVQ21405RJ	SW STOP/DEMO	[M]
S614	EVQ21405RJ	SW POWER	[M]
S615	EVQ21405RJ	SW AUX	[M]
S616	EVQ21405RJ	SW REW	[M]
S617	EVQ21405RJ	SW ALL DISC	[M]
S618	EVQ21405RJ	SW FF	[M]
S619	EVQ21405RJ	SW REC	[M]
S620	EVQ21405RJ	SW OPEN/CLOSE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S621	EVQ21405RJ	SW CD CHANGE	[M]
S622	EVQ21405RJ	SW REMASTER	[M]
S623	EVQ21405RJ	SW SSEQ	[M]
S701	RSH1A048-A	SW RESET	[M]
S780	RSH1A049-U	SW OPEN	[M]
S971	RSH1A018-3U	SW MODE	[M]
S972	RSH1A019-2U	SW LEAF	[M]
S973	RSH1A019-2U	SW LEAF	[M]
S974	RSH1A019-2U	SW LEAF	[M]
S975	RSH1A019-2U	SW LEAF	[M]
		CONNECTORS	
CN1	K1MN14B00066	14P FFC CONNECTOR	[M]
CN301	RJU100W13	13P B2B CONNECTOR	[M]
CN302	RJU100W13	13P B2B CONNECTOR	[M]
CN303	K1KA02A00008	FAN CONNECTOR	[M]
CN305	K1MN14C00004	14P FFC CONNECTOR	[M]
CN306	K1MN17C00002	17P FFC CONNECTOR	[M]
CN308	RJS2A8030	30P FFC CONNECTOR	[M]
CN503	K1KA02A00008	FAN CONNECTOR	[M]
CN504	RJT119W08V	8P CONNECTOR	[M]
CN505	K1KB07A00016	7P CONNECTOR	[M]
CN506	RJT119W06V	6P CONNECTOR	[M]
CN507A	REXX0320	2P STANDBY WIRE	[M]
CN603	K1KA12B00095	12P CONNECTOR	[M]
CN606	RJS2A4230-F	30P FFC CONNECTOR	[M]
CN701	RJS2A8616	16P FPC CONNECTOR	[M]
CN702	RJS2A7717	17P FFC CONNECTOR	[M]
CN1303	RJS1A5711	11P CONNECTOR	[M]
CN1304	RJS1A5709	9P CONNECTOR	[M]
CP501	RJT100W13	13P BTB CONNECTOR	[M]
CP502	RJT100W13	13P BTB CONNECTOR	[M]
CP1301	RJS1A6805-J	CONNECTOR	[M]
CP1902	K1KA09B00058	CONNECTOR	[M]
CS971	RJU071H09M1	CONNECTOR	[M]
		COILS & TRANSFORMERS	
L101	RLQBR39KT-1Y	COIL	[M]
L102	RLQBR39KT-1Y	COIL	[M]
L200	RLQZR73MT-T	CHOKE COIL	[M]
L201	RLQZR73MT-T	CHOKE COIL	[M]
L203	J0JBC0000019	CHIP INDUCTOR	[M]
L204	G0C3R3JA0027	COIL	[M]
L300	G0C3R3JA0027	COIL	[M]
L301	RLL500050T-Y	RF CHOKE COIL	[M]
L302	RLQB101JTD-D	INDUCTOR	[M]
L303	RLQB101JTD-D	INDUCTOR	[M]
L400	RLQZR73MT-T	CHOKE COIL	[M]
L401	RLQZR73MT-T	CHOKE COIL	[M]
L503	RLQZ371	CHOKE COIL	[M] ⚠
L600	RLQB101JTD-D	INDUCTOR	[M]
L601	RLQB101JTD-D	INDUCTOR	[M]
L602	G0C100JA0030	INDUCTOR	[M]
L603	G0C101JA0027	COIL	[M]
L604	G0C3R3JA0027	COIL	[M]
L702	G0ZZ00001930	CHOKE COIL	[M]
L703	RLL500050T-Y	RF CHOKE COIL	[M]
L704	RLL500050T-Y	RF CHOKE COIL	[M]
L1301	7L1A62N	BIAS OCS COIL	[M]
L1302	RLQB470JTD-D	RF CHOKE COIL	[M]
T501	G4C6AEZ00001	MAIN TRANSFORMER	[M] ⚠
T502	RTP1H3E002	BACK-UP TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z101	RLA2Z007-T	COIL	[M]
Z102	RLI2Z021M-T	AM IF BLOCK	[M]
Z120	ENV17290G1Y	FM TUNER PACK	[M]
Z501	ERZV10V511CS	ZENER	[M] ⚠

Ref. No.	Part No.	Part Name & Description	Remarks
Z601	B3RAB0000012	REMOTE SENSOR	[M]
Z971	RGSD12A1445T	RADA RESISTOR	[M]
		CERAMIC FILTERS	
CF201	J0B1075A0086	CERAMIC CAPACITOR	[M]
CF202	J0B1075A0077	CERAMIC FILTER	[M]
		RELAY	
RL501	RSY0040M-0	POWER RELAY	[M] ⚠
		OSCILLATORS	
X102	RLFDFT22DD	CRYSTAL OSCILLATOR	[M]
X103	H0H720400005	CRYSTAL OSCILLATOR	[M]
X300	H0H433400001	CRYSTAL OSCILLATOR	[M]
X301	H2A100500006	RESONATOR	[M]
X302	RSXD32K7S02	CRYSTAL OSCILLATOR	[M]
X701	RSXC16M9S04	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL600	A2BC00000051	FL DISPLAY	[M]
		FUSES	
F1	K5D801BK0007	800MA FUSE	[M] ⚠
		FUSE HOLDERS	
FC1	EYF52BC	FUSE HOLDER	[M]
FC2	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	
FP501	K5G402AA0002	FUSE PROTECTOR	[M] ⚠
FP502	K5G102AA0002	FUSE PROTECTOR	[M] ⚠
		HOLDERS	
H303	K1YF08000003	8P WIRE HOLDER	[M]
H307	RMR0320	11P WIRE HOLDER	[M]
H309	RMR0318	9P WIRE HOLDER	[M]
H503	K1YF06000002	6P WIRE HOLDER	[M]
H601A	RMR0313	CABLE HOLDER	[M]
H601B	RMR0313	CABLE HOLDER	[M]
H604	RMR0321	12P WIRE HOLDER	[M]
H605A	RMR0316	7P WIRE HOLDER	[M]
H605B	RMR0316	7P WIRE HOLDER	[M]
H606	RMR0316	7P WIRE HOLDER	[M]
H608A	RMR0312	3P CABLE HOLDER	[M]
H608B	RMR0312	3P CABLE HOLDER	[M]
		JACKS	
JK101	RJH8304N	JK ANTENNA	[M]
JK300	GP1F32T	JK OPTICAL TERMINAL	[M]
JK301	K4BC04B00036	JK RED/BLACK SPEAKER	[M]
JK302	K4BC04B00037	JK BLUE/GRAY SPEAKER	[M]
JK303	RJH2213N-1	JK AUX IN	[M]
JK501	K2AA2B000004	JK AC INLET	[M] ⚠
JK900	RJJ37TK07-X	JK HEADPHONE	[M]
		EARTH TERMINAL	
E501	SNE1004-2	EARTH TERMINAL	[M]
E502	SNE1004-2	EARTH TERMINAL	[M]
		WIRES	
W303	REXX0292	8P (POWER PCB-MAIN)	[M]
W307	RWJ1111200XX	11P (MAIN-DECK)	[M]
W308B	RWJ0102095SS	2P DECK-CASS EJECT	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W309	RWJ1109290XX	9P WIRE (MAIN-DECK)	[M]
W503	REXX0290	6P TRANS-PANEL	[M]
W601	RWJ1104260XX	4P WIRE	[M]
W604	REXX0294	12P (BTN-PANEL)	[M]
W605	RWJ1107160XX	7P WIRE (H/P-PANEL)	[M]
W606	RWJ0207130XX	7P (PANEL-TRANS)	[M]
W1903	RWJ0102050KR	MOTOR WIRE	[M]
WH303	RJS1A5502	CABLE HOLDER	[M]
		RESISTORS	
R102	ERJ3GEYJ472V	4.7K 1/16W	[M]
R103	ERJ3GEYJ101V	100 1/16W	[M]
R104	ERJ3GEYJ103V	10K 1/16W	[M]
R105	ERJ3GEYJ471V	470 1/16W	[M]
R106	ERJ3GEYJ474V	470K 1/16W	[M]
R107	ERJ3GEYJ331V	330 1/16W	[M]
R108	ERJ3GEYJ474V	470K 1/16W	[M]
R109	ERJ3GEYJ331V	330 1/16W	[M]
R110	ERJ3GEYJ102V	1K 1/16W	[M]
R111	ERJ3GEYJ391V	390 1/16W	[M]
R112	ERJ3GEYJ104V	100K 1/16W	[M]
R113	ERJ3GEYJ103V	10K 1/16W	[M]
R114	ERJ3GEYJ562V	5.6K 1/16W	[M]
R115	ERJ3GEYJ561V	560 1/16W	[M]
R116	ERJ3GEYJ102V	1K 1/16W	[M]
R117	ERJ3GEYJ683V	68K 1/16W	[M]
R118	ERJ3GEYJ332V	3.3K 1/16W	[M]
R119	ERJ3GEYJ123V	12K 1/16W	[M]
R120	ERJ3GEYJ473V	47K 1/16W	[M]
R121	ERJ3GEYJ223V	22K 1/16W	[M]
R122	ERJ3GEYJ272V	2.7K 1/16W	[M]
R123	ERJ3GEYJ683V	68K 1/16W	[M]
R124	ERJ3GEYJ330V	33 1/16W	[M]
R125	ERJ3GEYJ471V	470 1/16W	[M]
R126	ERJ3GEYJ102V	1K 1/16W	[M]
R127	ERJ3GEYJ471V	470 1/16W	[M]
R128	ERJ3GEYJ820V	82 1/16W	[M]
R129	ERJ3GEYJ273V	27K 1/16W	[M]
R130	ERJ3GEYJ103V	10K 1/16W	[M]
R131	ERJ3GEYJ680V	68 1/16W	[M]
R132	ERJ3GEYJ103V	10K 1/16W	[M]
R133	ERJ3GEYJ102V	1K 1/16W	[M]
R134	ERJ3GEYJ471V	470 1/16W	[M]
R135	ERJ3GEYJ102V	1K 1/16W	[M]
R136	ERJ3GEYJ102V	1K 1/16W	[M]
R137	ERJ3GEYJ102V	1K 1/16W	[M]
R138	ERJ3GEYJ332V	3.3K 1/16W	[M]
R139	ERJ3GEYJ223V	22K 1/16W	[M]
R140	ERJ3GEYJ223V	22K 1/16W	[M]
R141	ERJ3GEYJ682V	6.8K 1/16W	[M]
R142	ERJ3GEYJ682V	6.8K 1/16W	[M]
R143	ERJ3GEYJ223V	22K 1/16W	[M]
R145	ERJ3GEYJ104V	100K 1/16W	[M]
R146	ERJ3GEYJ104V	100K 1/16W	[M]
R151	ERJ3GEYJ820V	82 1/16W	[M]
R152	ERJ3GEY0R00V	0 1/16W	[M]
R211	ERJ3GEYJ103V	10K 1/16W	[M]
R212	ERJ3GEYJ182V	1.8K 1/16W	[M]
R214	ERJ3GEYJ472V	4.7K 1/16W	[M]
R215	ERJ3GEYJ223V	22K 1/16W	[M]
R216	ERJ3GEY0R00V	0 1/16W	[M]
R218	ERJ3GEYJ333V	33K 1/16W	[M]
R219	ERJ3GEYJ472V	4.7K 1/16W	[M]
R220	ERJ3GEYJ822V	8.2K 1/16W	[M]
R221	ERJ3GEYJ682V	6.8K 1/16W	[M]
R222	ERJ3GEYJ152V	1.5K 1/16W	[M]
R223	ERJ3GEYJ392V	3.9K 1/16W	[M]
R224	ERJ3GEYJ273V	27K 1/16W	[M]
R225	ERJ3GEYJ122V	1.2K 1/16W	[M]
R228	ERDS1FVJ100T	10 1/2W	[M]
R229	ERDS1FVJ100T	10 1/2W	[M]
R230	ERDS1FVJ100T	10 1/2W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R231	ERDS1FVJ100T	10 1/2W	[M]
R300	ERJ3GEYJ472V	4.7K 1/16W	[M]
R301	ERJ3GEYJ103V	10K 1/16W	[M]
R302	ERJ3GEYJ102V	1K 1/16W	[M]
R303	ERJ3GEYJ102V	1K 1/16W	[M]
R304	ERJ3GEYJ104V	100K 1/16W	[M]
R305	ERJ3GEYJ102V	1K 1/16W	[M]
R306	ERJ3GEYJ103V	10K 1/16W	[M]
R307	ERJ3GEYJ101V	100 1/16W	[M]
R308	ERJ3GEYJ101V	100 1/16W	[M]
R309	ERJ3GEYJ103V	10K 1/16W	[M]
R310	ERJ3GEYJ103V	10K 1/16W	[M]
R311	ERJ3GEYJ103V	10K 1/16W	[M]
R312	ERJ3GEYJ222V	2.2K 1/16W	[M]
R313	ERJ3GEYJ101V	100 1/16W	[M]
R314	ERJ3GEYJ101V	100 1/16W	[M]
R315	ERJ3GEYJ101V	100 1/16W	[M]
R316	ERJ3GEYJ101V	100 1/16W	[M]
R317	ERJ3GEYJ101V	100 1/16W	[M]
R318	ERJ3GEYJ101V	100 1/16W	[M]
R319	ERJ3GEYJ101V	100 1/16W	[M]
R320	ERJ3GEYJ101V	100 1/16W	[M]
R321	ERJ3GEYJ101V	100 1/16W	[M]
R322	ERJ3GEYJ101V	100 1/16W	[M]
R323	ERJ3GEYJ472V	4.7K 1/16W	[M]
R324	ERJ3GEYJ472V	4.7K 1/16W	[M]
R325	ERJ3GEYJ473V	47K 1/16W	[M]
R326	ERJ3GEYJ472V	4.7K 1/16W	[M]
R327	ERJ3GEYJ472V	4.7K 1/16W	[M]
R328	ERJ3GEYJ101V	100 1/16W	[M]
R329	ERJ3GEYJ102V	1K 1/16W	[M]
R330	ERJ3GEYJ474V	470K 1/16W	[M]
R331	ERJ3GEYJ103V	10K 1/16W	[M]
R332	ERJ3GEYJ474V	470K 1/16W	[M]
R333	ERJ3GEYJ472V	4.7K 1/16W	[M]
R334	ERJ3GEYJ102V	1K 1/16W	[M]
R335	ERJ3GEYJ472V	4.7K 1/16W	[M]
R336	ERJ3GEYJ472V	4.7K 1/16W	[M]
R337	ERJ3GEYJ472V	4.7K 1/16W	[M]
R338	ERJ3GEYJ472V	4.7K 1/16W	[M]
R339	ERJ3GEYJ101V	100 1/16W	[M]
R340	ERJ3GEYJ101V	100 1/16W	[M]
R341	ERJ3GEYJ101V	100 1/16W	[M]
R342	ERJ3GEYJ103V	10K 1/16W	[M]
R343	ERJ3GEYJ103V	10K 1/16W	[M]
R344	ERJ3GEYJ103V	10K 1/16W	[M]
R345	ERJ3GEYJ103V	10K 1/16W	[M]
R346	ERJ3GEYJ103V	10K 1/16W	[M]
R347	ERJ3GEYJ103V	10K 1/16W	[M]
R348	ERJ3GEYJ103V	10K 1/16W	[M]
R349	ERJ3GEYJ681V	680 1/16W	[M]
R350	ERJ3GEYJ473V	47K 1/16W	[M]
R351	ERJ3GEYJ473V	47K 1/16W	[M]
R352	ERJ3GEYJ472V	4.7K 1/16W	[M]
R353	ERJ3GEYJ472V	4.7K 1/16W	[M]
R354	ERJ3GEYJ681V	680 1/16W	[M]
R355	ERJ3GEYJ334V	330K 1/16W	[M]
R356	ERJ3GEYJ106V	10M 1/16W	[M]
R357	ERJ3GEYJ223V	22K 1/16W	[M]
R358	ERJ3GEYJ223V	22K 1/16W	[M]
R359	ERJ3GEYJ472V	4.7K 1/16W	[M]
R360	ERJ3GEYJ153V	15K 1/16W	[M]
R361	ERJ3GEYJ103V	10K 1/16W	[M]
R362	ERJ3GEYJ471V	470 1/16W	[M]
R363	ERJ3GEYJ121V	120 1/16W	[M]
R364	ERJ3GEYJ101V	100 1/16W	[M]
R365	ERJ3GEYJ102V	1K 1/16W	[M]
R366	ERJ3GEYJ102V	1K 1/16W	[M]
R367	ERJ3GEYJ102V	1K 1/16W	[M]
R368	ERJ3GEYJ102V	1K 1/16W	[M]
R369	ERJ3GEYJ102V	1K 1/16W	[M]
R370	ERJ3GEYJ102V	1K 1/16W	[M]
R371	ERJ3GEYJ101V	100 1/16W	[M]
R372	ERJ3GEYJ223V	22K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R373	ERJ3GEYJ122V	1.2K 1/16W	[M]
R374	ERJ3GEYJ122V	1.2K 1/16W	[M]
R375	ERDS1FVJ4R7T	4.7 1/2W	[M]
R376	ERJ3GEY0R00V	0 1/16W	[M]
R377	ERJ3GEYJ223V	22K 1/16W	[M]
R378	ERJ3GEYJ101V	100 1/16W	[M]
R379	ERJ3GEYJ101V	100 1/16W	[M]
R380	ERJ3GEYJ101V	100 1/16W	[M]
R381	ERJ3GEYJ101V	100 1/16W	[M]
R382	ERJ3GEYJ101V	100 1/16W	[M]
R383	ERJ3GEYJ103V	10K 1/16W	[M]
R384	ERJ3GEYJ472V	4.7K 1/16W	[M]
R385	ERJ3GEYJ101V	100 1/16W	[M]
R386	ERJ3GEYJ103V	10K 1/16W	[M]
R387	ERJ3GEY0R00V	0 1/16W	[M]
R388	ERJ3GEY0R00V	0 1/16W	[M]
R389	ERJ3GEYJ103V	10K 1/16W	[M]
R390	ERJ3GEY0R00V	0 1/16W	[M]
R391	ERJ3GEY0R00V	0 1/16W	[M]
R392	ERJ3GEYJ103V	10K 1/16W	[M]
R393	ERJ3GEY0R00V	0 1/16W	[M]
R394	ERJ3GEY0R00V	0 1/16W	[M]
R395	ERJ3GEY0R00V	0 1/16W	[M]
R396	ERJ3GEY0R00V	0 1/16W	[M]
R397	ERJ3GEY0R00V	0 1/16W	[M]
R398	ERJ3GEY0R00V	0 1/16W	[M]
R399	ERJ3GEY0R00V	0 1/16W	[M]
R409	ERJ3GEY0R00V	0 1/16W	[M]
R410	ERJ3GEY0R00V	0 1/16W	[M]
R411	ERJ3GEYJ103V	10K 1/16W	[M]
R412	ERJ3GEYJ182V	1.8K 1/16W	[M]
R413	ERJ3GEY0R00V	0 1/16W	[M]
R414	ERJ3GEYJ472V	4.7K 1/16W	[M]
R415	ERJ3GEYJ223V	22K 1/16W	[M]
R416	ERJ3GEY0R00V	0 1/16W	[M]
R417	ERJ3GEYJ101V	100 1/16W	[M]
R418	ERJ3GEYJ333V	33K 1/16W	[M]
R419	ERJ3GEYJ472V	4.7K 1/16W	[M]
R420	ERJ3GEYJ822V	8.2K 1/16W	[M]
R421	ERJ3GEYJ682V	6.8K 1/16W	[M]
R422	ERJ3GEYJ152V	1.5K 1/16W	[M]
R423	ERJ3GEYJ392V	3.9K 1/16W	[M]
R424	ERJ3GEYJ273V	27K 1/16W	[M]
R425	ERJ3GEYJ122V	1.2K 1/16W	[M]
R428	ERJ3GEYJ102V	1K 1/16W	[M]
R429	ERDS1FVJ100T	10 1/2W	[M]
R430	ERDS1FVJ100T	10 1/2W	[M]
R431	ERDS1FVJ100T	10 1/2W	[M]
R432	ERDS1FVJ100T	10 1/2W	[M]
R433	ERJ6GEY0R00V	0 1/10W	[M]
R434	ERJ6GEY0R00V	0 1/10W	[M]
R435	ERJ6GEY0R00V	0 1/10W	[M]
R436	ERJ3GEY0R00V	0 1/16W	[M]
R437	ERJ6GEY0R00V	0 1/10W	[M]
R438	ERJ3GEY0R00V	0 1/16W	[M]
R439	ERJ3GEY0R00V	0 1/16W	[M]
R440	ERJ3GEYJ102V	1K 1/16W	[M]
R441	ERJ3GEY0R00V	0 1/16W	[M]
R442	ERJ3GEY0R00V	0 1/16W	[M]
R444	ERJ3GEY0R00V	0 1/16W	[M]
R445	ERJ3GEY0R00V	0 1/16W	[M]
R446	ERJ3GEY0R00V	0 1/16W	[M]
R447	ERJ3GEY0R00V	0 1/16W	[M]
R448	ERJ3GEY0R00V	0 1/16W	[M]
R449	ERJ3GEY0R00V	0 1/16W	[M]
R450	ERJ3GEYJ102V	1K 1/16W	[M]
R451	ERJ3GEYJ473V	47K 1/16W	[M]
R452	ERJ3GEYJ101V	100 1/16W	[M]
R453	ERJ3GEYJ101V	100 1/16W	[M]
R454	ERJ3GEYJ101V	100 1/16W	[M]
R455	ERJ3GEYJ101V	100 1/16W	[M]
R456	ERJ3GEYJ101V	100 1/16W	[M]
R458	ERJ3GEY0R00V	0 1/16W	[M]
R459	ERJ3GEYJ101V	100 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R460	ERJ3GEY0R00V	0 1/16W	[M]
R461	ERJ3GEYJ472V	4.7K 1/16W	[M]
R505	ERDS2TJ563T	56K 1/4W	[M]
R506	ERDS2TJ563T	56K 1/4W	[M]
R511	ERDS1FVJ102T	1K 1/2W	[M]
R512	ERDS1FVJ151T	150 1/2W	[M]
R514	ERDS2TJ563T	56K 1/4W	[M]
R515	ERDS2TJ563T	56K 1/4W	[M]
R517	ERDS2TJ331T	330 1/4W	[M]
R518	ERDS2TJ122T	1.2K 1/4W	[M]
R519	ERDS2TJ2R2T	2.2 1/4W	[M]
R520	ERDS2TJ2R2T	2.2 1/4W	[M]
R524	ERDS2TJ2R2T	2.2 1/4W	[M]
R526	ERDS2TJ103T	10K 1/4W	[M]
R532	ERDS2TJ153T	15K 1/4W	[M]
R533	ERDS2TJ153T	15K 1/4W	[M]
R534	ERDS1FVJ331T	330 1/2W	[M]
R536	ERDS1FVJ2R2T	2.2 1/2W	[M]
R537	ERDS2TJ222T	2.2K 1/4W	[M]
R539	ERDS1FVJ392T	3.9K 1/2W	[M]
R540	ERDS2TJ153T	15K 1/4W	[M]
R541	ERDS2TJ153T	15K 1/4W	[M]
R542	ERDS2TJ222T	2.2K 1/4W	[M]
R543	ERDS2TJ222T	2.2K 1/4W	[M]
R544	ERDS2TJ472T	4.7K 1/4W	[M]
R545	ERDS2TJ472T	4.7K 1/4W	[M]
R546	ERDS2TJ223T	22K 1/4W	[M]
R547	ERDS2TJ683T	68K 1/4W	[M]
R548	ERDS2TJ184T	180K 1/4W	[M]
R549	ERDS1FVJ2R2T	2.2 1/2W	[M]
R550	ERDS1FVJ331T	330 1/2W	[M]
R551	ERDS2TJ104T	100K 1/4W	[M]
R554	ERDS1FVJ331T	330 1/2W	[M]
R556	ERDS1FVJ270T	27 1/2W	[M]
R557	ERDS1FVJ270T	27 1/2W	[M]
R561	ERDS2TJ104T	100K 1/4W	[M]
R562	ERDS2TJ394T	390K 1/4W	[M]
R565	ERDS2TJ123T	12K 1/4W	[M]
R566	ERDS2TJ103T	10K 1/4W	[M]
R567	ERDS2TJ151T	150 1/4W	[M]
R568	ERDS1FVJ150T	15 1/2W	[M]
R569	ERDS1FVJ270T	27 1/2W	[M]
R571	ERDS1FVJ332T	3.3K 1/2W	[M]
R572	ERDS2TJ561T	560 1/4W	[M]
R573	ERDS2TJ272T	2.7K 1/4W	[M]
R574	ERDS2TJ272T	2.7K 1/4W	[M]
R576	ERDS2TJ103T	10K 1/4W	[M]
R577	ERDS2TJ103T	10K 1/4W	[M]
R578	ERDS2TJ332T	3.3K 1/4W	[M]
R580	ERDS1FVJ180T	18 1/2W	[M]
R581	ERDS1FVJ180T	18 1/2W	[M]
R583	ERDS2TJ821T	820 1/4W	[M]
R584	ERDS2TJ151T	150 1/4W	[M]
R585	ERDS1FVJ220T	22 1/2W	[M]
R586	ERDS2TJ151T	150 1/4W	[M]
R587	ERDS2TJ472T	4.7K 1/4W	[M]
R589	ERD2FCVJ4R7T	4.7 1/4W	[M]
R600	ERJ3GEYJ680V	68 1/16W	[M]
R601	ERJ3GEYJ680V	68 1/16W	[M]
R602	ERJ3GEYJ470V	47 1/16W	[M]
R603	ERJ3GEYJ273V	27K 1/16W	[M]
R604	ERJ3GEYJ103V	10K 1/16W	[M]
R605	ERJ3GEYJ223V	22K 1/16W	[M]
R606	ERJ3GEYJ123V	12K 1/16W	[M]
R607	ERJ3GEYJ102V	1K 1/16W	[M]
R608	ERJ3GEYJ102V	1K 1/16W	[M]
R609	ERJ3GEYJ122V	1.2K 1/16W	[M]
R610	ERJ3GEYJ182V	1.8K 1/16W	[M]
R611	ERJ3GEYJ222V	2.2K 1/16W	[M]
R612	ERJ3GEYJ222V	2.2K 1/16W	[M]
R613	ERJ3GEYJ272V	2.7K 1/16W	[M]
R614	ERJ3GEYJ102V	1K 1/16W	[M]
R615	ERJ3GEYJ102V	1K 1/16W	[M]
R616	ERJ3GEYJ122V	1.2K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R617	ERJ3GEYJ102V	1K 1/16W	[M]
R618	ERJ3GEYJ102V	1K 1/16W	[M]
R619	ERJ3GEYJ122V	1.2K 1/16W	[M]
R620	ERJ3GEYJ182V	1.8K 1/16W	[M]
R621	ERJ3GEYJ182V	1.8K 1/16W	[M]
R622	ERJ3GEYJ222V	2.2K 1/16W	[M]
R623	ERJ3GEYJ272V	2.7K 1/16W	[M]
R624	ERJ3GEYJ472V	4.7K 1/16W	[M]
R625	ERJ3GEYJ682V	6.8K 1/16W	[M]
R626	ERJ3GEYJ682V	6.8K 1/16W	[M]
R627	ERJ3GEYJ472V	4.7K 1/16W	[M]
R628	ERJ6GEYJ471V	470 1/10W	[M]
R629	ERJ6GEYJ471V	470 1/10W	[M]
R630	ERJ3GEYJ223V	22K 1/16W	[M]
R631	ERJ3GEYJ102V	1K 1/16W	[M]
R632	ERJ3GEYJ102V	1K 1/16W	[M]
R633	ERJ3GEYJ102V	1K 1/16W	[M]
R634	ERJ3GEYJ102V	1K 1/16W	[M]
R636	ERJ3GEYJ472V	4.7K 1/16W	[M]
R637	ERJ6GEYJ471V	470 1/10W	[M]
R639	ERJ3GEYJ472V	4.7K 1/16W	[M]
R640	ERJ3GEYJ272V	2.7K 1/16W	[M]
R642	ERJ3GEY0R00V	0 1/16W	[M]
R643	ERJ3GEY0R00V	0 1/16W	[M]
R644	ERJ3GEY0R00V	0 1/16W	[M]
R700	ERDS1FVJ180T	18 1/2W	[M]
R701	ERDS2TJ563T	56K 1/4W	[M]
R701	ERJ3GEYJ4R7V	4.7 1/16W	[M]
R702	ERDS2TJ101T	100 1/4W	[M]
R702	ERJ3GEYJ472V	4.7K 1/16W	[M]
R703	ERDS2TJ103T	10K 1/4W	[M]
R704	ERDS2TJ563T	56K 1/4W	[M]
R704	ERJ3GEYJ102V	1K 1/16W	[M]
R705	ERDS2TJ103T	10K 1/4W	[M]
R705	ERJ3GEYJ393V	39K 1/16W	[M]
R706	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERDS2TJ562T	5.6K 1/4W	[M]
R707	ERJ3GEY0R00V	0 1/16W	[M]
R708	ERDS2TJ103T	10K 1/4W	[M]
R708	ERJ3GEY0R00V	0 1/16W	[M]
R709	ERDS2TJ824T	820K 1/4W	[M]
R709	ERJ3GEYJ104V	100K 1/16W	[M]
R710	ERDS2TJ563T	56K 1/4W	[M]
R711	ERDS2TJ824T	820K 1/4W	[M]
R711	ERJ3GEYJ823V	82K 1/16W	[M]
R712	ERDS2TJ102T	1K 1/4W	[M]
R712	ERJ3GEYJ821V	820 1/16W	[M]
R713	ERDS2TJ563T	56K 1/4W	[M]
R714	ERJ3GEYJ471V	470 1/16W	[M]
R715	ERJ3GEYJ332V	3.3K 1/16W	[M]
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R720	ERDS2TJ823T	82K 1/4W	[M]
R720	ERJ3GEYJ105V	1M 1/16W	[M]
R721	ERDS2TJ823T	82K 1/4W	[M]
R721	ERJ3GEYJ101V	100 1/16W	[M]
R722	ERDS2TJ104T	100K 1/4W	[M]
R723	ERDS2TJ102T	1K 1/4W	[M]
R723	ERJ3GEYJ332V	3.3K 1/16W	[M]
R724	ERDS2TJ104T	100K 1/4W	[M]
R725	ERDS2TJ102T	1K 1/4W	[M]
R725	ERJ3GEYJ331V	330 1/16W	[M]
R726	ERDS2TJ273T	27K 1/4W	[M]
R727	ERJ3GEYJ102V	1K 1/16W	[M]
R728	ERDS2TJ102T	1K 1/4W	[M]
R728	ERJ3GEYJ183V	18K 1/16W	[M]
R729	ERDS2TJ102T	1K 1/4W	[M]
R729	ERJ3GEYJ102V	1K 1/16W	[M]
R730	ERDS2TJ224T	220K 1/4W	[M]
R731	ERDS2TJ682T	6.8K 1/4W	[M]
R731	ERJ3GEYJ223V	22K 1/16W	[M]
R732	ERDS2TJ822T	8.2K 1/4W	[M]
R733	ERDS2TJ822T	8.2K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R734	ERDS2TJ221T	220 1/4W	[M]
R735	ERDS2TJ224T	220K 1/4W	[M]
R735	ERJ3GEYJ101V	100 1/16W	[M]
R736	ERDS2TJ682T	6.8K 1/4W	[M]
R736	ERJ3GEYJ101V	100 1/16W	[M]
R737	ERDS2TJ681T	680 1/4W	[M]
R737	ERJ3GEYJ682V	6.8K 1/16W	[M]
R738	ERDS2TJ822T	8.2K 1/4W	[M]
R738	ERJ3GEYJ682V	6.8K 1/16W	[M]
R739	ERDS2TJ681T	680 1/4W	[M]
R740	ERDS2TJ153T	15K 1/4W	[M]
R741	ERDS2TJ682T	6.8K 1/4W	[M]
R742	ERDS2TJ562T	5.6K 1/4W	[M]
R742	ERJ3GEYJ103V	10K 1/16W	[M]
R743	ERDS2TJ122T	1.2K 1/4W	[M]
R743	ERJ3GEYJ472V	4.7K 1/16W	[M]
R744	ERDS2TJ153T	15K 1/4W	[M]
R744	ERJ3GEYJ393V	39K 1/16W	[M]
R745	ERDS2TJ682T	6.8K 1/4W	[M]
R746	ERDS2TJ562T	5.6K 1/4W	[M]
R747	ERDS2TJ122T	1.2K 1/4W	[M]
R748	ERDS2TJ152T	1.5K 1/4W	[M]
R749	ERDS2TJ152T	1.5K 1/4W	[M]
R749	ERJ3GEYJ183V	18K 1/16W	[M]
R750	ERDS2TJ332T	3.3K 1/4W	[M]
R751	ERDS2TJ332T	3.3K 1/4W	[M]
R753	ERDS2TJ222T	2.2K 1/4W	[M]
R753	ERJ3GEYJ100V	10 1/16W	[M]
R754	ERDS2TJ220T	22 1/4W	[M]
R754	ERJ3GEYJ5R6V	5.6 1/16W	[M]
R755	ERDS2TJ220T	22 1/4W	[M]
R756	ERDS2TJ220T	22 1/4W	[M]
R757	ERDS2TJ220T	22 1/4W	[M]
R758	ERDS2TJ222T	2.2K 1/4W	[M]
R759	ERDS2TJ472T	4.7K 1/4W	[M]
R760	ERDS2TJ223T	22K 1/4W	[M]
R760	ERJ3GEYJ101V	100 1/16W	[M]
R761	ERDS2TJ223T	22K 1/4W	[M]
R761	ERJ3GEYJ103V	10K 1/16W	[M]
R762	ERDS2TJ562T	5.6K 1/4W	[M]
R762	ERJ3GEYJ103V	10K 1/16W	[M]
R763	ERDS2TJ562T	5.6K 1/4W	[M]
R763	ERJ3GEYJ103V	10K 1/16W	[M]
R764	ERDS2TJ683T	68K 1/4W	[M]
R764	ERJ3GEYJ102V	1K 1/16W	[M]
R765	ERDS2TJ683T	68K 1/4W	[M]
R766	ERDS2TJ822T	8.2K 1/4W	[M]
R767	ERDS2TJ822T	8.2K 1/4W	[M]
R768	ERDS2TJ472T	4.7K 1/4W	[M]
R769	ERDS2TJ472T	4.7K 1/4W	[M]
R770	ERDS2TJ332T	3.3K 1/4W	[M]
R771	ERDS2TJ104T	100K 1/4W	[M]
R772	ERDS2TJ472T	4.7K 1/4W	[M]
R773	ERDS2TJ102T	1K 1/4W	[M]
R774	ERDS2TJ104T	100K 1/4W	[M]
R775	ERDS2TJ153T	15K 1/4W	[M]
R776	ERDS2TJ102T	1K 1/4W	[M]
R777	ERDS2TJ221T	220 1/4W	[M]
R778	ERDS2TJ153T	15K 1/4W	[M]
R779	ERDS2TJ822T	8.2K 1/4W	[M]
R780	ERDS2TJ473T	47K 1/4W	[M]
R781	ERDS2TJ473T	47K 1/4W	[M]
R784	K5G102AA0002	1/8W	[M]
R785	ERDS2TJ101T	100 1/4W	[M]
R786	ERDS2TJ102T	1K 1/4W	[M]
R787	ERDS2TJ102T	1K 1/4W	[M]
R788	ERDS2TJ104T	100K 1/4W	[M]
R789	ERDS2TJ104T	100K 1/4W	[M]
R790	ERDS2TJ562T	5.6K 1/4W	[M]
R791	ERDS2TJ562T	5.6K 1/4W	[M]
R827	ERJ3GEY0R00V	0 1/16W	[M]
R920	ERJ3GEY0R00V	0 1/16W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1101	ERJ3GEYJ270V	27 1/16W	[M]
R1102	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1103	ERJ3GEYJ183V	18K 1/16W	[M]
R1104	ERJ3GEYJ103V	10K 1/16W	[M]
R1105	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1106	ERJ3GEYJ104V	100K 1/16W	[M]
R1107	ERJ3GEYJ102V	1K 1/16W	[M]
R1109	ERJ3GEYJ102V	1K 1/16W	[M]
R1110	ERJ3GEYJ333V	33K 1/16W	[M]
R1201	ERJ3GEYJ270V	27 1/16W	[M]
R1202	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1203	ERJ3GEYJ183V	18K 1/16W	[M]
R1204	ERJ3GEYJ103V	10K 1/16W	[M]
R1205	ERJ3GEYJ222V	2.2K 1/16W	[M]
R1206	ERJ3GEYJ104V	100K 1/16W	[M]
R1207	ERJ3GEYJ102V	1K 1/16W	[M]
R1209	ERJ3GEYJ102V	1K 1/16W	[M]
R1210	ERJ3GEYJ333V	33K 1/16W	[M]
R1302	ERJ3GEYJ471V	470 1/16W	[M]
R1303	ERJ3GEYJ475V	4.7M 1/16W	[M]
R1304	ERJ3GEYJ223V	22K 1/16W	[M]
R1305	ERJ3GEYJ103V	10K 1/16W	[M]
R1307	ERD25FVJ220T	22 1/4W	[M]
R1308	ERD25FVJ220T	22 1/4W	[M]
R1309	ERDS1FVJ471T	470 1/2W	[M]
R1313	ERJ3GEYJ103V	10K 1/16W	[M]
R1314	ERJ3GEYJ102V	1K 1/16W	[M]
R1316	ERJ3GEYJ102V	1K 1/16W	[M]
R1318	ERJ3GEYJ103V	10K 1/16W	[M]
R1319	ERJ3GEYJ123V	12K 1/16W	[M]
R1320	ERJ3GEYJ104V	100K 1/16W	[M]
R1321	ERJ3GEYJ470V	47 1/16W	[M]
R1322	D0GB823JA002	82K 1/16W	[M]
R1327	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1328	ERJ3GEYJ153V	15K 1/16W	[M]
R1329	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1330	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1331	ERJ3GEYJ752V	7.5K 1/16W	[M]
R1332	ERJ3GEYJ103V	10K 1/16W	[M]
R1333	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1334	ERJ3GEYJ223V	22K 1/16W	[M]
R1335	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1336	ERJ3GEYJ152V	1.5K 1/16W	[M]
R1337	ERJ3GEYJ103V	10K 1/16W	[M]
R1338	ERJ3GEYJ472V	4.7K 1/16W	[M]
R1341	ERJ3GEYJ471V	470 1/16W	[M]
R1342	ERJ3GEYJ473V	47K 1/16W	[M]
R1343	ERJ3GEYJ332V	3.3K 1/16W	[M]
R1344	ERJ3GEYJ273V	27K 1/16W	[M]
R1345	ERJ3GEYJ102V	1K 1/16W	[M]
R1371	ERJ3GEYJ223V	22K 1/16W	[M]
R1374	ERJ3GEYJ471V	470 1/16W	[M]
		CAPACITORS	
C11	F1D1E103A001	0.01 25V	[M]
C12	F2A1C101A235	100 16V	[M]
C21	F1D1E103A001	0.01 25V	[M]
C22	F2A1C101A235	100P 16V	[M]
C101	ECJ1VB1E103K	0.01 25V	[M]
C102	ECA1CAK101XB	100 16V	[M]
C103	ECJ1VB1E103K	0.01 25V	[M]
C104	ECJ1VB1H102K	1000P 50V	[M]
C105	ECJ1VB1H102K	1000P 50V	[M]
C106	ECJ1VB1E103K	0.01 25V	[M]
C107	ECUV1E473ZFV	0.047 25V	[M]
C108	ECUV1H080DCV	8P 50V	[M]
C109	ECJ1VB1H102K	1000P 50V	[M]
C110	ECJ1VB1E103K	0.01 25V	[M]
C111	ECA1HAK4R7XB	4.7 50V	[M]
C112	ECJ1VB1E103K	0.01 25V	[M]
C113	ECJ1VB1H102K	1000P 50V	[M]
C114	ECA1HAK3R3XB	3.3 50V	[M]
C115	ECA1HAK4R7XB	4.7 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C116	ECUV1C333KBV	0.033 16V	[M]
C117	ECJ1VB1E103K	0.01 25V	[M]
C118	ECJ1VB1E103K	0.01 25V	[M]
C119	F0A2A561A010	560P 100V	[M]
C120	ECA1CAK100XB	10 16V	[M]
C121	ECA1HAKR47XB	0.47 50V	[M]
C122	ECA1HAK010XB	1 50V	[M]
C123	ECA1HAK010XB	1 50V	[M]
C124	ECUV1H101JCV	100P 50V	[M]
C125	ECA1CAK220XB	22 16V	[M]
C126	ECUV1C105ZFN	10 16V	[M]
C127	ECA1CAK220XB	22 16V	[M]
C129	ECEA0JKA101B	100 6.3V	[M]
C130	ECEA0JKA101B	100 6.3V	[M]
C132	ECJ1VB1H102K	1000P 50V	[M]
C133	ECUV1H270JCV	27P 50V	[M]
C134	ECUV1H270JCV	27P 50V	[M]
C136	ECJ1VB1H102K	1000P 50V	[M]
C137	ECUV1H332KBV	3300P 50V	[M]
C138	ECJ1VB1E103K	0.01 25V	[M]
C139	ECA1HAK4R7XB	4.7 50V	[M]
C141	ECA1HAK010XB	1 50V	[M]
C142	ECA1HAK010XB	1 50V	[M]
C143	ECUV1H682KBV	6800P 50V	[M]
C144	ECUV1H682KBV	6800P 50V	[M]
C147	ECJ1VB1H102K	1000P 50V	[M]
C148	ECJ1VB1E103K	0.01 25V	[M]
C149	ECUV1H104KBV	0.1 50V	[M]
C211	ECUV1H101JCV	100P 50V	[M]
C212	ECUV1H101JCV	100P 50V	[M]
C213	ECJ1VB1H102K	1000P 50V	[M]
C214	ECUV1H221KBV	220P 50V	[M]
C215	ECA1HAK2R2XB	2.2 50V	[M]
C216	ECA1CAK100XB	10 16V	[M]
C217	ECJ1VC1H102J	1000P 50V	[M]
C218	ECEA0JKA101B	100 6.3V	[M]
C219	ECA1CAK100XB	10 16V	[M]
C220	ECA1CAK100XB	10 16V	[M]
C221	ECA1CAK100XB	10 16V	[M]
C222	ECA1CAK100XB	10 16V	[M]
C223	ECA1CAK100XB	10 16V	[M]
C224	ECA1CAK100XB	10 16V	[M]
C225	ECA1HAKR47XB	0.47 50V	[M]
C226	ECA1HAKR47XB	0.47 50V	[M]
C227	ECUVNA154KBV	54 10V	[M]
C228	ECUVNA154KBV	54 10V	[M]
C229	ECJ2VC1H152J	1500P 50V	[M]
C230	ECA1CAK100XB	10 16V	[M]
C231	ECQV1H474JZ3	0.47 50V	[M]
C232	ECQV1H474JZ3	0.47 50V	[M]
C233	ECEA0JKA101B	100 6.3V	[M]
C234	ECA1CAK100XB	10 16V	[M]
C236	ECUV1E104KBV	0.1 25V	[M]
C237	ECUV1E104KBV	0.1 25V	[M]
C238	ECUV1H682KBV	6800P 50V	[M]
C239	ECUV1H682KBV	6800P 50V	[M]
C240	ECUV1E104KBV	0.1 25V	[M]
C241	ECUV1E104KBV	0.1 25V	[M]
C242	ECUV1H104KBV	0.1 50V	[M]
C243	ECUV1H104KBV	0.1 50V	[M]
C244	ECUV1H104KBV	0.1 50V	[M]
C245	ECJ1VC1H151J	150P 50V	[M]
C300	ECJ1VB1H102K	1000P 50V	[M]
C301	ECUV1H104KBV	0.1 50V	[M]
C302	ECJ1VB1E103K	0.01 25V	[M]
C303	ECUV1H471KBV	470P 50V	[M]
C304	ECJ1VC1H101K	100P 50V	[M]
C305	ECJ1VC1H101K	100P 50V	[M]
C306	ECJ1VC1H101K	100P 50V	[M]
C307	ECJ1VC1H101K	100P 50V	[M]
C308	ECJ1VC1H101K	100P 50V	[M]
C309	ECJ1VC1H101K	100P 50V	[M]
C310	ECJ1VB1E103K	0.01 25V	[M]
C311	RCE1AM102B	02 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C312	ECUV1H104KBV	0.1 50V	[M]
C313	ECEA0JKA101B	100 6.3V	[M]
C314	ECA1HAK010XB	1 50V	[M]
C315	ECJ1VC1H101K	100P 50V	[M]
C316	ECA1HAK2R2XB	2.2 50V	[M]
C317	ECJ1VC1H102J	1000P 50V	[M]
C318	ECUV1H560JCV	56P 50V	[M]
C319	ECJ1VB1H102K	1000P 50V	[M]
C320	ECUV1H560JCV	56P 50V	[M]
C321	ECJ1VC1H680J	68P 50V	[M]
C322	ECJ1VC1H680J	68P 50V	[M]
C323	ECJ1VC1H180J	18P 50V	[M]
C324	ECJ1VC1H220J	22P 50V	[M]
C325	ECJ1VB1E223K	0.022 25V	[M]
C326	ECUV1H103KBV	0.01 50V	[M]
C327	ECUV1H221KBV	220P 50V	[M]
C328	ECJ1VC1H101K	100P 50V	[M]
C329	ECJ1VC1H101K	100P 50V	[M]
C330	ECJ1VC1H101K	100P 50V	[M]
C331	ECJ1VC1H101K	100P 50V	[M]
C332	ECJ1VC1H101K	100P 50V	[M]
C333	ECUV1H561KBV	560P 50V	[M]
C334	ECUV1H561KBV	560P 50V	[M]
C335	ECUV1H561KBV	560P 50V	[M]
C336	ECUV1H561KBV	560P 50V	[M]
C337	ECUV1H561KBV	560P 50V	[M]
C338	ECUV1H561KBV	560P 50V	[M]
C339	ECUV1H561KBV	560P 50V	[M]
C340	ECUV1H104KBV	0.1 50V	[M]
C341	ECEA0JKA101B	100 6.3V	[M]
C342	ECJ1VB1H102K	1000P 50V	[M]
C343	ECJ1VB1H103K	0.01 50V	[M]
C344	ECUV1H101JCV	100P 50V	[M]
C345	ECUV1H101JCV	100P 50V	[M]
C346	ECJ1VC1H470J	47P 50V	[M]
C347	ECJ1VB1E103K	0.01 25V	[M]
C348	ECJ1VB1H102K	1000P 50V	[M]
C349	ECEA0JKA470B	47 6.3V	[M]
C350	ECJ1VC1H101K	100P 50V	[M]
C351	ECJ1VC1H101K	100P 50V	[M]
C352	ECA1HAK100XB	10 50V	[M]
C353	ECJ1VB1H331K	330P 50V	[M]
C354	ECA1HAK100XB	10 50V	[M]
C355	ECJ1VC1H470J	47P 50V	[M]
C356	ECUV1H561KBV	560P 50V	[M]
C358	ECA1CM221B	220 16V	[M]
C359	ECEA1AKA101B	100 10V	[M]
C360	ECA0JAK101XB	100 6.3V	[M]
C361	ECUV1H104KBV	0.1 50V	[M]
C362	ECA1AAK220XB	22 10V	[M]
C363	ECUV1H101JCV	100P 50V	[M]
C364	ECUV1H101JCV	100P 50V	[M]
C365	ECUV1A224KBV	0.22 10V	[M]
C366	ECUV1A224KBV	0.22 10V	[M]
C367	ECUV1H104KBV	0.1 50V	[M]
C368	ECUV1H104KBV	0.1 50V	[M]
C411	ECUV1H101JCV	100P 50V	[M]
C412	ECUV1H101JCV	100P 50V	[M]
C413	ECJ1VB1H102K	1000P 50V	[M]
C414	ECUV1H221KBV	220P 50V	[M]
C415	ECA1HAK2R2XB	2.2 50V	[M]
C416	ECA1CAK100XB	10 16V	[M]
C417	ECJ1VC1H102J	1000P 50V	[M]
C418	ECA1HAK010XB	1 50V	[M]
C419	ECA1CAK100XB	10 16V	[M]
C420	ECA1CAK100XB	10 16V	[M]
C421	ECA1CAK100XB	10 16V	[M]
C422	ECA1CAK100XB	10 16V	[M]
C423	ECA1CAK100XB	10 16V	[M]
C424	ECA1CAK100XB	10 16V	[M]
C425	ECA1HAKR47XB	0.47 50V	[M]
C426	ECA1HAKR47XB	0.47 50V	[M]
C427	ECUVNA154KBV	54 10V	[M]
C428	ECUVNA154KBV	54 10V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C429	ECJ2VC1H152J	1500P 50V	[M]
C430	ECA1CAK100XB	10 16V	[M]
C431	ECQV1H474JZ3	0.47 50V	[M]
C432	ECQV1H474JZ3	0.47 50V	[M]
C436	ECUV1E104KBV	0.1 25V	[M]
C437	ECUV1E104KBV	0.1 25V	[M]
C438	ECUV1H682KBV	6800P 50V	[M]
C439	ECUV1H682KBV	6800P 50V	[M]
C440	ECUV1E104KBV	0.1 25V	[M]
C441	ECUV1E104KBV	0.1 25V	[M]
C442	ECUV1H681KBV	680P 50V	[M]
C443	ECUV1H681KBV	680P 50V	[M]
C445	ECJ1VC1H151J	150P 50V	[M]
C500	F1D1H821A012	820P 50V	[M]
C501	F1D1H821A012	820P 50V	[M]
C502	F1D1H821A012	820P 50V	[M]
C503	F1D1H821A012	820P 50V	[M]
C504	F1D1H390A006	39P 50V	[M]
C505	F1D1H390A006	39P 50V	[M]
C506	ECA1HAM222XE	2200 50V	[M]
C507	ECA1HAM222XE	2200 50V	[M]
C508	ECA1EAM332XE	3300 25V	[M]
C509	ECBT1H330JC5	33P 50V	[M]
C510	ECBT1H330JC5	33P 50V	[M]
C511	ECKR1H103ZF5	0.01 50V	[M]
C512	ECA1CAK101XB	100 16V	[M]
C515	ECBT1H103KB5	0.01 50V	[M]
C516	ECEA1HKA100B	10 50V	[M]
C517	ECKR2H103ZF5	0.01 500V	[M]
C518	ECKR1H103ZF5	0.01 50V	[M]
C520	ECKR1H103ZF5	0.01 50V	[M]
C521	ECA1EAK330XB	33 25V	[M]
C526	ECA1HM330B	33 50V	[M]
C528	ECKR1H103ZF5	0.01 50V	[M]
C530	ECQE1104KF3	0.1 100V	[M]
C533	ECQV1H104JZ3	0.1 50V	[M]
C535	ECQV1H104JZ3	0.1 50V	[M]
C536	ECA0JAK221XB	220 6.3V	[M]
C537	F1D1H102A012	1000P 50V	[M]
C548	ECKR1H103KB5	0.01 50V	[M]
C575	ECA1HAK4R7XB	4.7 50V	[M]
C578	ECKR1H103ZF5	0.01 50V	[M]
C580	ECKR1H103ZF5	0.01 50V	[M]
C581	ECA1HM470B	47 50V	[M]
C582	ECQE1104KF3	0.1 100V	[M]
C583	ECKR1H103ZF5	0.01 50V	[M]
C584	ECA1CAM102XB	1000 16V	[M]
C585	ECA1EM101B	100 25V	[M]
C586	ECA2AM100B	10 100V	[M]
C587	ECA1JM101B	100 63V	[M]
C588	ECA1HM101B	100 50V	[M]
C600	ECA1HAK220XB	22 50V	[M]
C601	ECA1HAK220XB	22 50V	[M]
C602	ECA1HAK3R3XB	3.3 50V	[M]
C603	ECJ1VB1H102K	1000P 50V	[M]
C604	ECJ1VB1E223K	0.022 25V	[M]
C605	ECJ1VB1E223K	0.022 25V	[M]
C606	ECJ1VC1H680J	68P 50V	[M]
C608	ECEA0JKA470B	47 6.3V	[M]
C609	ECJ1VB1H103K	0.01 50V	[M]
C610	ECJ1VB1H102K	1000P 50V	[M]
C611	ECUV1H101JCV	100P 50V	[M]
C612	ECUV1H101JCV	100P 50V	[M]
C613	ECA1AAK220XB	22 10V	[M]
C614	ECJ1VB1H103K	0.01 50V	[M]
C615	ECJ1VB1H221K	220P 50V	[M]
C616	ECJ1VB1H221K	220P 50V	[M]
C617	ECJ1VB1H221K	220P 50V	[M]
C618	ECJ1VB1H221K	220P 50V	[M]
C619	ECUV1H104KBV	0.1 50V	[M]
C621	ECUV1H104KBV	0.1 50V	[M]
C622	ECUV1H104KBV	0.1 50V	[M]
C623	ECUV1H104KBV	0.1 50V	[M]
C700	ECEA0JKA101B	100 6.3V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C701	ECEA0JKA330I	33 6.3V	[M]
C701	ECEA1CKA330B	33 16V	[M]
C702	ECEA1HKA2R2B	2.2 50V	[M]
C702	ECUV1A474KBV	0.47 10V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C703	F1D1H1040002	0.1 50V	[M]
C704	ECEA0JKA221B	220 6.3V	[M]
C704	F1H1C104A065	0.1 16V	[M]
C705	ECEA1AKN100B	10 10V	[M]
C705	F1H1C104A065	0.1 16V	[M]
C706	ECEA1EKA101B	100 25V	[M]
C706	ECUVNA105ZFV	05 10V	[M]
C707	ECUV1C393KBV	0.039 16V	[M]
C707	F1D1H1040002	0.1 50V	[M]
C708	EEUFC1A681LE	680P 10V	[M]
C709	F1D1H102A012	1000P 50V	[M]
C710	ECUV1H471JCV	470P 50V	[M]
C710	F1D1H102A012	1000P 50V	[M]
C711	ECA1CAK100XB	10 16V	[M]
C711	F1H1C104A065	0.1 16V	[M]
C712	F1D1C272A010	2700P 16V	[M]
C712	F1H1C104A065	0.1 16V	[M]
C713	ECA1CAK100XB	10 16V	[M] EB
C713	ECA1HAKR33XB	0.33 50V	[M] EG E
C713	F1H1C104A065	0.1 16V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C714	ECFR1C123KR	0.012 16V	[M]
C715	ECUV1A474KBV	0.47 10V	[M]
C715	F1D1C272A010	2700P 16V	[M]
C716	ECA1CAK100XB	10 16V	[M] EB
C716	ECA1HAKR33XB	0.33 50V	[M] EG E
C716	ECUV1H681KBV	680P 50V	[M]
C717	ECFR1C123KR	0.012 16V	[M]
C717	F1H1C104A065	0.1 16V	[M]
C718	ECEA1AKA101B	100 10V	[M]
C718	ECJ1VB1C823K	0.082 16V	[M]
C719	ECEA1AKA101B	100 10V	[M]
C720	ECA1HAK010XB	1 50V	[M]
C721	ECUV1H220JCV	22P 50V	[M]
C721	F1D1C392A010	3900P 16V	[M]
C722	ECUV1H270JCV	27P 50V	[M]
C722	F1D1C392A010	3900P 16V	[M]
C723	ECA1HAK010XB	1 50V	[M]
C723	ECEA0JKA221I	220 6.3V	[M]
C724	F1D1C392A010	3900P 16V	[M]
C724	F1H1C104A065	0.1 16V	[M]
C725	ECJ1VB1H102K	1000P 50V	[M]
C725	F1D1C392A010	3900P 16V	[M]
C726	ECA1CAK100XB	10 16V	[M] EG E
C726	ECA1HAKR33XB	0.33 50V	[M] EB
C726	ECJ1VB1H102K	1000P 50V	[M]
C727	ECA1CAK100XB	10 16V	[M] EG E
C727	ECA1HAK010XI	1 50V	[M]
C727	ECA1HAKR33XB	0.33 50V	[M] EB
C728	ECA1HAK010XI	1 50V	[M]
C728	ECBT1H332KB5	3300P 50V	[M]
C729	ECBT1H332KB5	3300P 50V	[M]
C729	F1H1C104A065	0.1 16V	[M]
C730	ECA1HAK3R3XB	3.3 50V	[M]
C730	F1H1C104A065	0.1 16V	[M]
C731	ECA0JAK221XI	220 6.3V	[M]
C731	ECA1HAK3R3XB	3.3 50V	[M]
C732	ECA1CAK221XB	220 16V	[M]
C733	ECA1CAK100XB	10 16V	[M]
C733	F1H1C104A065	0.1 16V	[M]
C734	ECA1CAK100XB	10 16V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUV1E104ZFV	0.1 25V	[M]
C736	ECUV1E104ZFV	0.1 25V	[M]
C736	F1D1H223A012	0.022 50V	[M]
C737	ECJ1VB1E103K	0.01 25V	[M]
C737	F1D1H223A012	0.022 50V	[M]
C738	ECEA1CKA100B	10 16V	[M]
C738	ECJ1VB1C563K	0.056 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C739	ECUV1E183KBV	0.018 25V	[M]
C739	F1D1H101A012	100P 50V	[M]
C740	F1D1H101A012	100P 50V	[M]
C740	F1H1C104A065	0.1 16V	[M]
C741	ECA1HAKR47XB	0.47 50V	[M]
C741	ECJ1VB1H102K	1000P 50V	[M]
C742	ECA1HAKR47XB	0.47 50V	[M]
C742	ECUV1C473KBV	0.047 16V	[M]
C743	ECBT1H103KB5	0.01 50V	[M]
C743	ECUV1E104ZFV	0.1 25V	[M]
C744	ECBT1H103KB5	0.01 50V	[M]
C744	ECUV1E153KBV	0.015 25V	[M]
C745	ECUV1E104ZFV	0.1 25V	[M]
C745	F1D1H101A012	100P 50V	[M]
C746	F1D1H101A012	100P 50V	[M]
C746	F1H1C104A065	0.1 16V	[M]
C747	ECBT1H270J5	27P 50V	[M]
C747	ECUV1H471KBV	470P 50V	[M]
C748	ECBT1H270J5	27P 50V	[M]
C748	F1H1C104A065	0.1 16V	[M]
C749	ECUV1H392KBV	3900P 50V	[M]
C750	F1H1C104A065	0.1 16V	[M]
C751	ECA1CAK100XB	10 16V	[M]
C751	F1H1C104A065	0.1 16V	[M]
C752	ECA1CAK100XB	10 16V	[M]
C752	ECUV1E183KBV	0.018 25V	[M]
C753	ECUV1H471KBV	470P 50V	[M]
C754	F1H1C104A065	0.1 16V	[M]
C755	F1H1C104A065	0.1 16V	[M]
C757	ECEA0JKA101I	100 6.3V	[M]
C758	F1H1C104A065	0.1 16V	[M]
C1101	ECA1HAK010XB	1 50V	[M]
C1102	ECJ1VB1H102K	1000P 50V	[M]
C1103	ECA1CAK101XB	100 16V	[M]
C1104	ECUV1C273KBV	0.027 16V	[M]
C1105	ECUV1H471KBV	470P 50V	[M]
C1106	ECA1HAK2R2XB	2.2 50V	[M]
C1107	F1H1H152A219	1500P 50V	[M]
C1108	ECA1CAK100XB	10 16V	[M]
C1109	ECA1HAK3R3XB	3.3 50V	[M]
C1110	ECUV1H682KBV	6800P 50V	[M]
C1121	ECJ1VB1H102K	1000P 50V	[M]
C1122	ECUV1H103KBV	0.01 50V	[M]
C1123	ECUV1H271KBV	270P 50V	[M]
C1201	ECA1HAK010XB	1 50V	[M]
C1202	ECJ1VB1H102K	1000P 50V	[M]
C1203	ECA1CAK101XB	100 16V	[M]
C1204	ECUV1C273KBV	0.027 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1205	ECUV1H471KBV	470P 50V	[M]
C1206	ECA1HAK2R2XB	2.2 50V	[M]
C1207	F1H1H152A219	1500P 50V	[M]
C1208	ECA1CAK100XB	10 16V	[M]
C1209	ECA1HAK3R3XB	3.3 50V	[M]
C1210	ECUV1H682KBV	6800P 50V	[M]
C1221	ECJ1VB1H102K	1000P 50V	[M]
C1222	ECUV1H103KBV	0.01 50V	[M]
C1223	ECUV1H271KBV	270P 50V	[M]
C1301	ECEA1HKA0R1B	0.1 50V	[M]
C1302	ECUV1C333KBV	0.033 16V	[M]
C1303	ECUV1C333KBV	0.033 16V	[M]
C1304	ECEA1HKA4R7B	4.7 50V	[M]
C1305	ECA1CAK330XB	33 16V	[M]
C1307	ECA1AAK221XQ	220 10V	[M]
C1308	ECA1CAK220XB	22 16V	[M]
C1310	ECA1HAK0R1XB	0.1 50V	[M]
C1311	ECA1CAK470XB	47 16V	[M]
C1312	ECUV1H332KBV	3300P 50V	[M]
C1314	ECJ1VB1H222K	2200P 50V	[M]
C1315	ECJ1VB1H222K	2200P 50V	[M]
C1316	ECJ1VB1H102K	1000P 50V	[M]
C1317	ECJ1VB1H102K	1000P 50V	[M]
C1318	ECQV1H473JZ3	0.047 50V	[M]
C1319	ECA1CAK101XB	100 16V	[M]
C1320	ECA1HAK010XB	1 50V	[M]
C1321	ECQP1472JZT	4700P 100V	[M]
C1322	F0A2A102A010	1000P 100V	[M]
C1323	ECEA1HKN010B	1 50V	[M]
C1324	ECA1CAK470XB	47 16V	[M]
C1325	ECJ1VB1E103K	0.01 25V	[M]
C1326	ECA1CAK100XB	10 16V	[M]
C1371	ECUV1H103KBV	0.01 50V	[M]
		CHIP JUMPER	
RJ701	ERJ3GEY0R00V	0 1/16W	[M]
RJ715	ERJ3GEY0R00V	0 1/16W	[M]
RJ716	ERJ3GEY0R00V	0 1/16W	[M]
RJ717	ERJ3GEY0R00V	0 1/16W	[M]
RJ718	ERJ3GEY0R00V	0 1/16W	[M]
RJ719	ERJ3GEY0R00V	0 1/16W	[M]
RJ720	ERJ3GEY0R00V	0 1/16W	[M]
RJ721	ERJ3GEY0R00V	0 1/16W	[M]
RJ722	ERJ3GEY0R00V	0 1/16W	[M]
RJ723	ERJ3GEY0R00V	0 1/16W	[M]
RJ724	ERJ3GEY0R00V	0 1/16W	[M]
RJ725	ERJ3GEY0R00V	0 1/16W	[M]

20.5. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1010	PACKING CASE	[M]EB EG
P1	RPGX1151	PACKING CASE	[M]E
P2	RPNX0162	POLYFOAM	[M]
P3	RPHV0001	MIRAMAT	[M]
		ACCESSORIES	
A1	EUR7711060	REMOTE CONTROL	[M]
A1-1	UR64EC2337J	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD (SF)	[M]EG E ⚠
A2	VJA0733	AC CORD (SF)	[M]EB ⚠
A3	RQT6888-B	O/I BOOK (En)	[M]EB E
A3	RQT6889-E	O/I BOOK (Sp/Ru/Cz/Po)	[M]E
A3	RQT6890-D	O/I BOOK (Ge/It/Fr)	[M]EG
A3	RQT6891-H	O/I BOOK (Du/Da/Sw)	[M]EG
A4	RSA0007-L	FM ANTENNA	[M]
A5	RSA0033A	AM LOOP ANTENNA	[M]
A6	K1YZ02000013	ANTENNA ADAPTER	[M]EB

20.6. Packaging

ACCESSORIES CASE

A1 : REMOTE CONTROL

A2 : AC CORD

A3 : O/I BOOK

A4 : FM ANTENNA WIRE

A5 : AM LOOP ANTENNA

